SUBMISSION

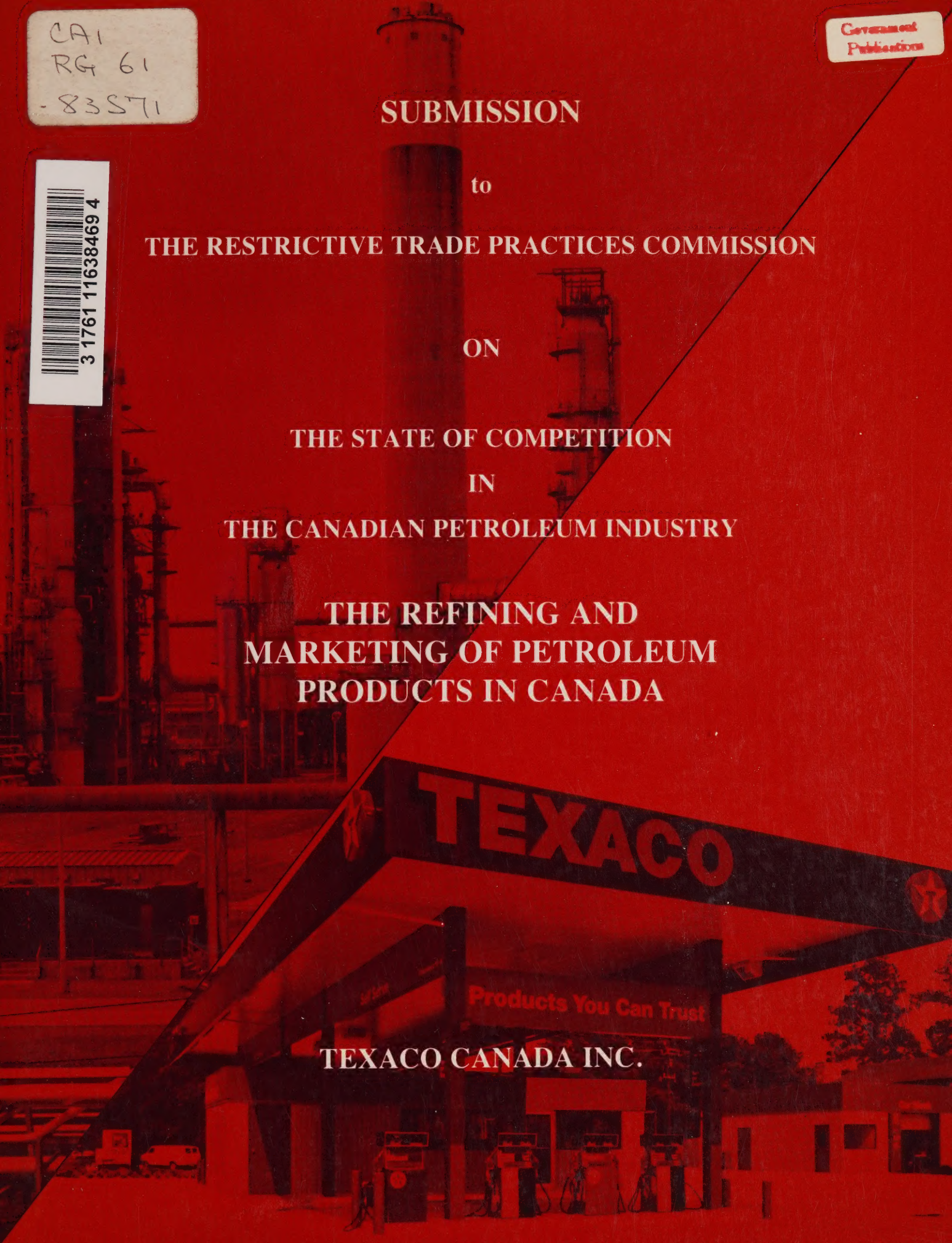
to

THE RESTRICTIVE TRADE PRACTICES COMMISSION

ON

THE STATE OF COMPETITION IN THE CANADIAN PETROLEUM INDUSTRY

THE REFINING AND MARKETING OF PETROLEUM PRODUCTS IN CANADA



TEXACO CANADA INC.

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TEXACO CANADA INC.

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THE REFINING AND MARKETING OF PETROLEUM PRODUCTS IN CANADA

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PREFACE

OPENING STATEMENT OF TEXACO CANADA INC. REFINING AND MARKETING SECTOR

In Volumes I and VI of the State of Competition in the Canadian Petroleum Industry (the ''Green Books''), the Director of Investigation and Research (the ''Director'') describes the gasoline marketing practices of Texaco Canada Inc. and of its competitors in the pre 1973 period. During the course of the hearings, evidence has been offered of complaints against and concerns about Canadian petroleum marketers. Texaco Canada proposes to respond as follows:

The Green Book Myth of Gasoline Marketing

The written allegations found in Volumes I and VI of the Green Books were publicized by the Director and his staff and quietly filed at the hearings. Just as the Director made no real effort to prove by credible evidence his scandalous allegations of misconduct found in the Volume entitled ''International Linkages'', it has become remarkably obvious that the Director does not intend to prove by evidence the Green Book marketing charges. Instead of offering evidence or economic assessment, the Director has been content to file material without identifying its authors, and then to present evidence of complaints and concerns which arise, in large measure, because of the overcapacity and oversupply that has for some years characterized petroleum refining and marketing in Canada.

The important, scandalous and unproved gasoline marketing allegations in the Green Books may be summarized as follows:

(1) Texaco Canada and its refining-marketing competitors acted collusively to prevent or lessen competition by gasoline marketers in Canada.

(2) By making joint and harmonized use of monopolistic and predatory practices, Texaco Canada and its refining-marketing competitors attempted to control or eliminate Canadian non-refining gasoline marketers.

(3) Texaco Canada and its refining-marketing competitors acted together and collusively to maintain deliberately inefficient marketing practices to the detriment of independent marketers, the consuming public and even the profitability of the refiners themselves.

It is fair to characterize these allegations and the theme of Volume VI as myths. Their author remains anonymous. They are supported only by speculation and anti-industry conjecture.

In preparing its answer to the Green Book, Texaco Canada is motivated by the following principles:

(1) It is important that the inquiry focus on competition issues and that a report be prepared and presented in a timely way.

(2) The Director made no real effort to prove by credible evidence most of his scandalous allegations of misconduct.

(3) Texaco Canada proposes to respond in considerable detail and as helpfully as possible to the complaints and concerns of witnesses who have been heard, and to the issues which have been identified by the Commission or its Counsel. Witnesses called by Texaco Canada will, of course, be knowledgeable about the company's marketing practices and policies during the pre-1973 period and they can be questioned by interested parties.

Texaco Canada's answer to the Green Book attacks relating to gasoline marketing takes the form of a written submission which examines the Director's allegations and the material upon which he relies, and attempts to bring the facts into focus with appropriate legal and economic considerations.

Organization of This Submission

This Submission is divided into five major parts, each of which deals with a portion of the Director's case on the refining and marketing of petroleum products.

These parts are as follows:

- Part I contains Texaco Canada's written response to the Director's refining allegations. It includes a description of the transformation of the Canadian refining industry during the past four decades, an analysis of the economics of the refining business and a direct response to the Director's allegations concerning product exchanges.
- Part II outlines the historic development of petroleum marketing in Canada and shows that the simplistic picture painted by the Director bears little relationship to reality.
- Part III contains Texaco Canada's written response to the Director's marketing allegations, focusing on the economic realities of petroleum marketing in Canada.
- Part IV describes Texaco Canada's current practices in marketing the full range of petroleum products which it refines.
- Finally, Part V contains a brief written response to the allegation that Texaco Canada's marketing system was and is inefficient, and presents evidence which shows not only that the Director has misunderstood the nature of efficiency in marketing, but that Texaco Canada has introduced a number of highly efficient innovations to its marketing and distribution systems.

Texaco Canada Evidence

Texaco Canada proposes to call evidence relating to the following matters:

Refining of crude oil

(a) What are the technological and economic constraints on refinery operations?

(b) How do these constraints affect petroleum marketing?

(c) What is Canada's refining capacity and what is its impact on petroleum marketing?

Reciprocal Agreements

In Volume V, the Director objects to arrangements among refiners by which products are exchanged, processed and sold. Texaco Canada's evidence will demonstrate that these allegations are without merit. Reciprocal arrangements save transportation costs, encourage competition, make product available for sale to non-refiners and, accordingly, benefit refiners, their customers and Canadian consumers. This Commission should be concerned about the cost of limitations on the freedom of refiners to choose what appears to them to be the most efficient and least costly methods of supplying petroleum products.

History and development of petroleum marketing

Texaco Canada proposes to call evidence to specifically address its policies, practices and rationale in the following areas:

(a) Tank wagon pricing and retailer support in the course of gasoline marketing.

(b) Direct sales of Texaco branded gasoline by the company.

(c) Dealings with non-Texaco branded gasoline resellers.

(d) Competition in the sale of non-gasoline petroleum products.

Texaco Canada's efficiency

Many jobbers have reiterated claims that their low cost and often crudely operated facilities are more efficient because they involve a relatively small capital outlay and small fixed operating cost. Because low cost operations will be highly profitable if the absence of aggressive price or service competition allows operators to sell large volumes of product, they have an obvious interest in preventing or discouraging larger companies from competing for their customers. Texaco Canada proposes to examine this issue in some depth by considering the problem in two aspects:

(1) What is efficiency? Efficiency is more than a measurement of low fixed cost. It is a measure of the extent to which a business operation provides a combination of products and services that meets the needs and wishes of its customers at the lowest practicable cost, given supply and demand conditions. Efficient operations meet the needs of a company's customers while benefiting its employees, its shareholders and the Canadian public.

(2) What is the relative efficiency of Texaco Canada? Texaco Canada does not have a sufficiently detailed understanding of the business practices of its competitors to make meaningful comparisons. It will, however, offer evidence with respect to the labour saving innovations, technologically supported conveniences, and cost saving measures which are in place and are constantly under development. Many of these efficiencies can only be developed and implemented by a company with multinational connections, huge financial resources and teams of highly trained and motivated professional personnel. Texaco Canada's evidence will, in part, be intended to identify the real reasons that some competitors of refiner-marketers seek government assistance to inhibit the competitive flexibility of highly efficient refiner-marketers.

Texaco Canada will offer evidence as to the aggressive behaviour of some market participants. Texaco Canada intends to continue to struggle to hold and indeed to increase its market share against all competitors. It intends to rely on all its efficiences and strengths.

The Commission should avoid the temptation of offering legal protection or advantages to less efficient independent petroleum marketers. The market and the Canadian public should not be asked to bear the cost.

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June 1983

PART I

THE REFINING SECTOR

I. The Transformation of the Canadian Refining Industry, 1946-1982

In 1946, the refining industry in Canada consisted of 31 refineries with an aggregate capacity of 247,000 barrels daily (B/D) — and an average capacity of about 8,000 B/D. Ninety percent of this capacity was held by the companies which were then or would later become the four national marketers of petroleum products.

By 1981, the number of refineries had increased to 37, but aggregate refining capacity had increased by over 800 percent to 2,259,000 barrels daily, while the average capacity of a refinery had increased nearly 700 percent to 61,000 B/D. The share of refining capacity held by the four leading companies of 1946 had declined to 57 percent.

Since the end of World War II, then, the Canadian refining industry has thoroughly transformed itself. Its absolute size increased enormously. The refineries themselves also grew substantially. Meanwhile, refinery technology had adjusted to consumer demand for a quite different mix of products, some of which did not exist in 1946.

Huge investments were required to bring about this transformation. Existing refiners and new entrants were forced to make difficult and complex investment decisions, involving a high degree of risk, in light of a number of rapidly changing economic forces. These forces included the growing demand for petroleum products by the Canadian public, the development of new facilities for transporting crude oil and petroleum products, and a substantial change in the identity of the petroleum products demanded. This portion of the Texaco Canada submission will trace the course of this process of transformation.

A. Growth in Demand

In 1946, the average refinery served the petroleum requirements of about 400,000 Canadians; by 1981 it served about 660,000. While this does not in itself represent a growth rate of much more than 1½ percent per annum over the 35 years, consumption per capita also increased from about 6½ to about 26 barrels annually. As a result, petroleum demand rose from 222,000 to 1,769,000 barrels daily by 1981, an increase of nearly 700 percent or an average of slightly more than 6 percent per annum. The increase in per capita consumption resulted from several developments, including significant economic growth in Canada, the large scale displacement of coal in the transportation and industrial sectors, and the development of new uses for products made from crude oil.

This growth in demand to more than 1¾ million barrels daily required the expansion of existing refining capacity or the building of new plants.

The industry responded to this new demand, creating new capacity in each of the principal refining regions of Canada.

Charts I-A to I-E show the year-by-year growth of the average refining capacity available in Canada and its four principal refining regions, along with actual crude oil runs from 1946 through 1982.

CHART I-A

Refining Capacity and Crude Runs
Canada

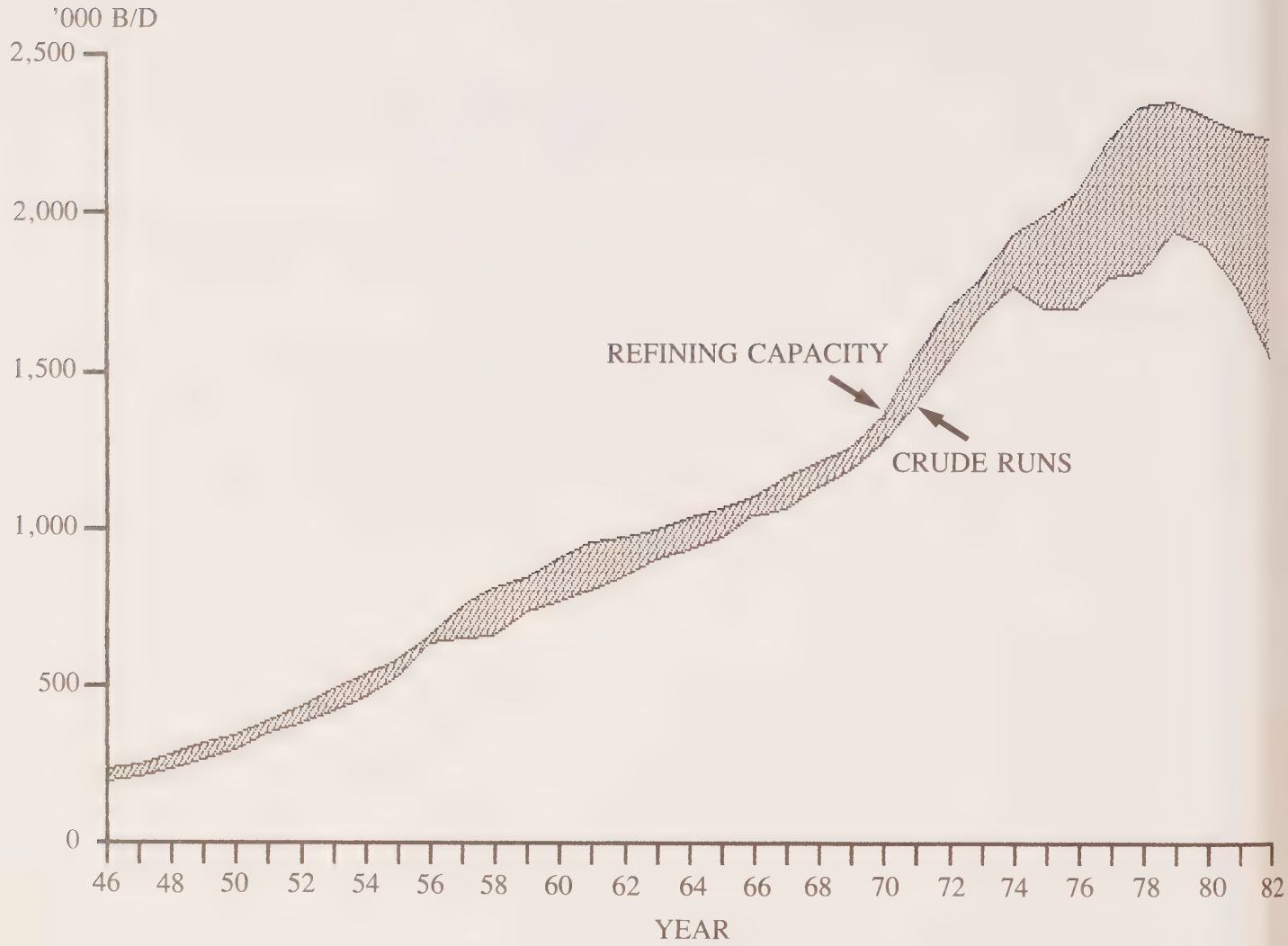


CHART I-B

Refining Capacity and Crude Runs
Atlantic

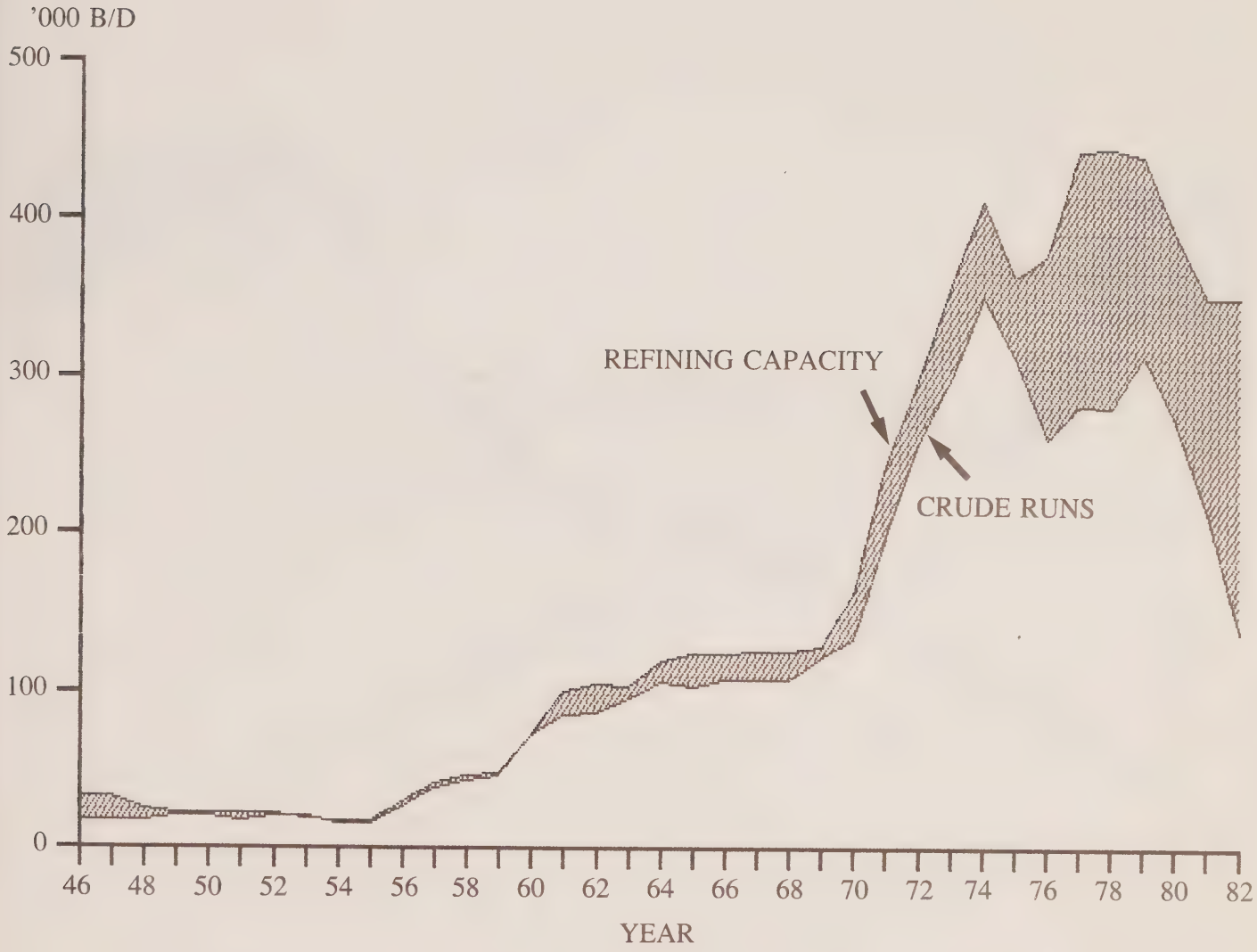


CHART I-C

Refining Capacity and Crude Runs
Quebec

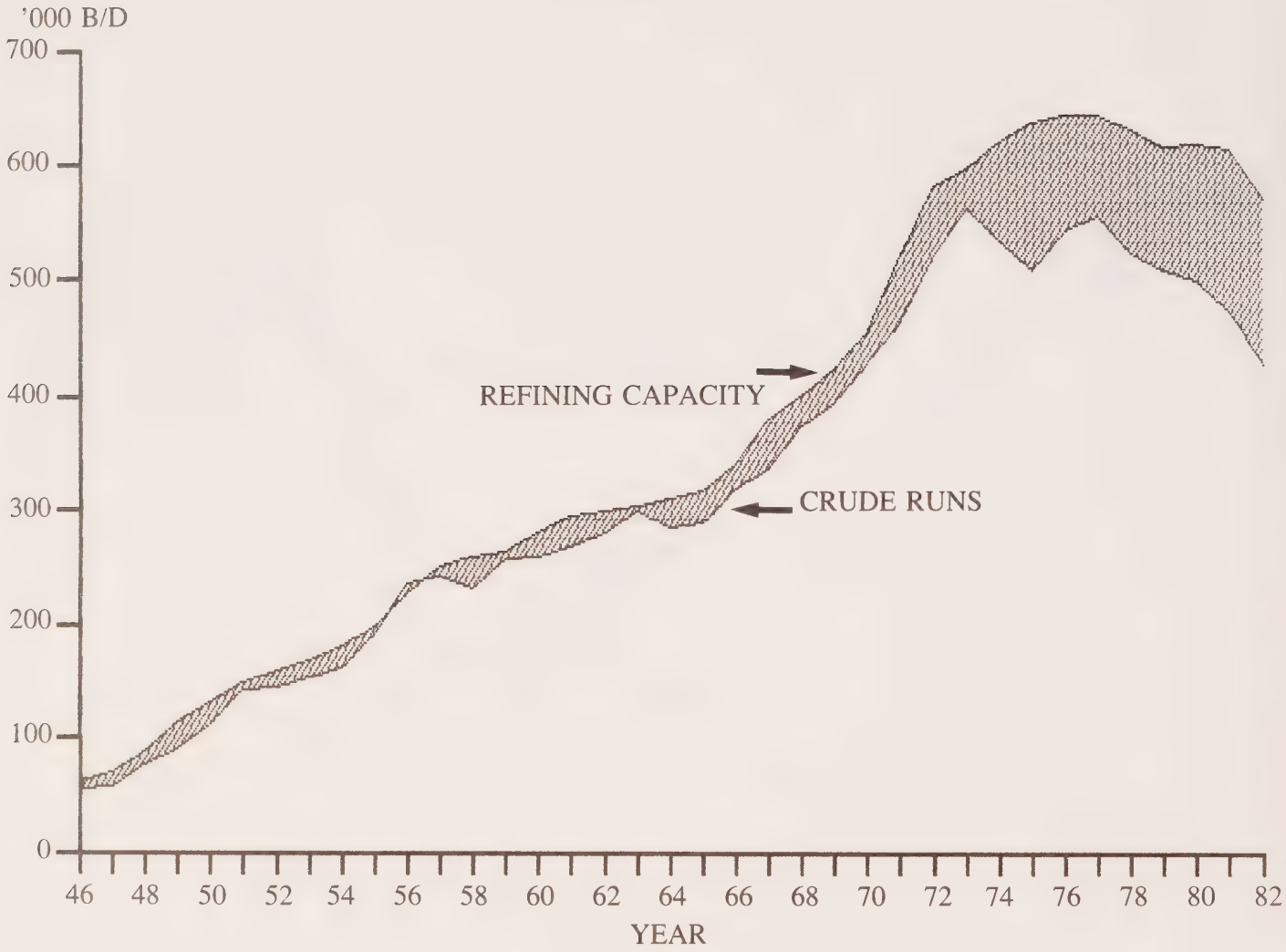


CHART I-D

Refining Capacity and Crude Runs
Ontario

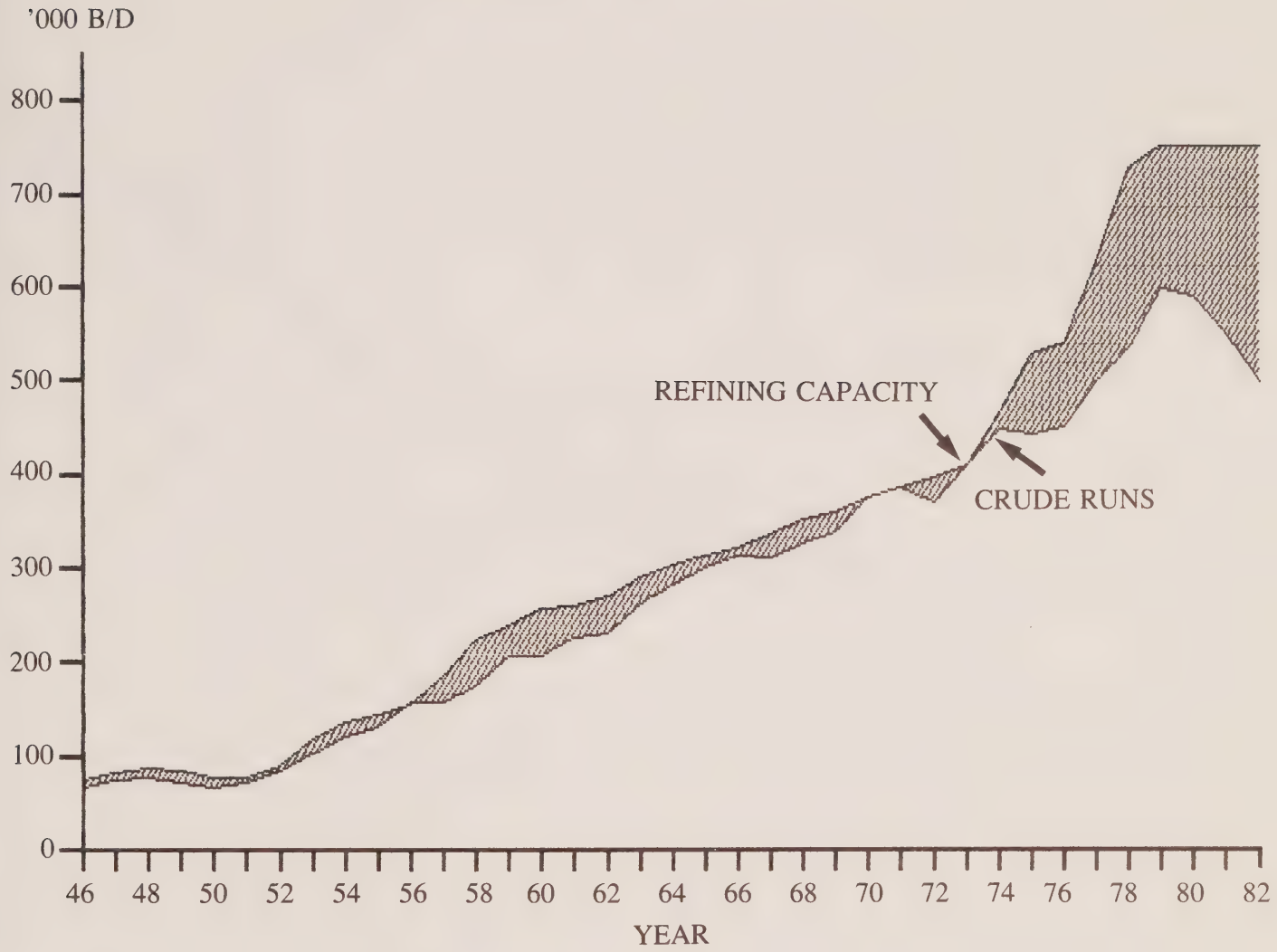
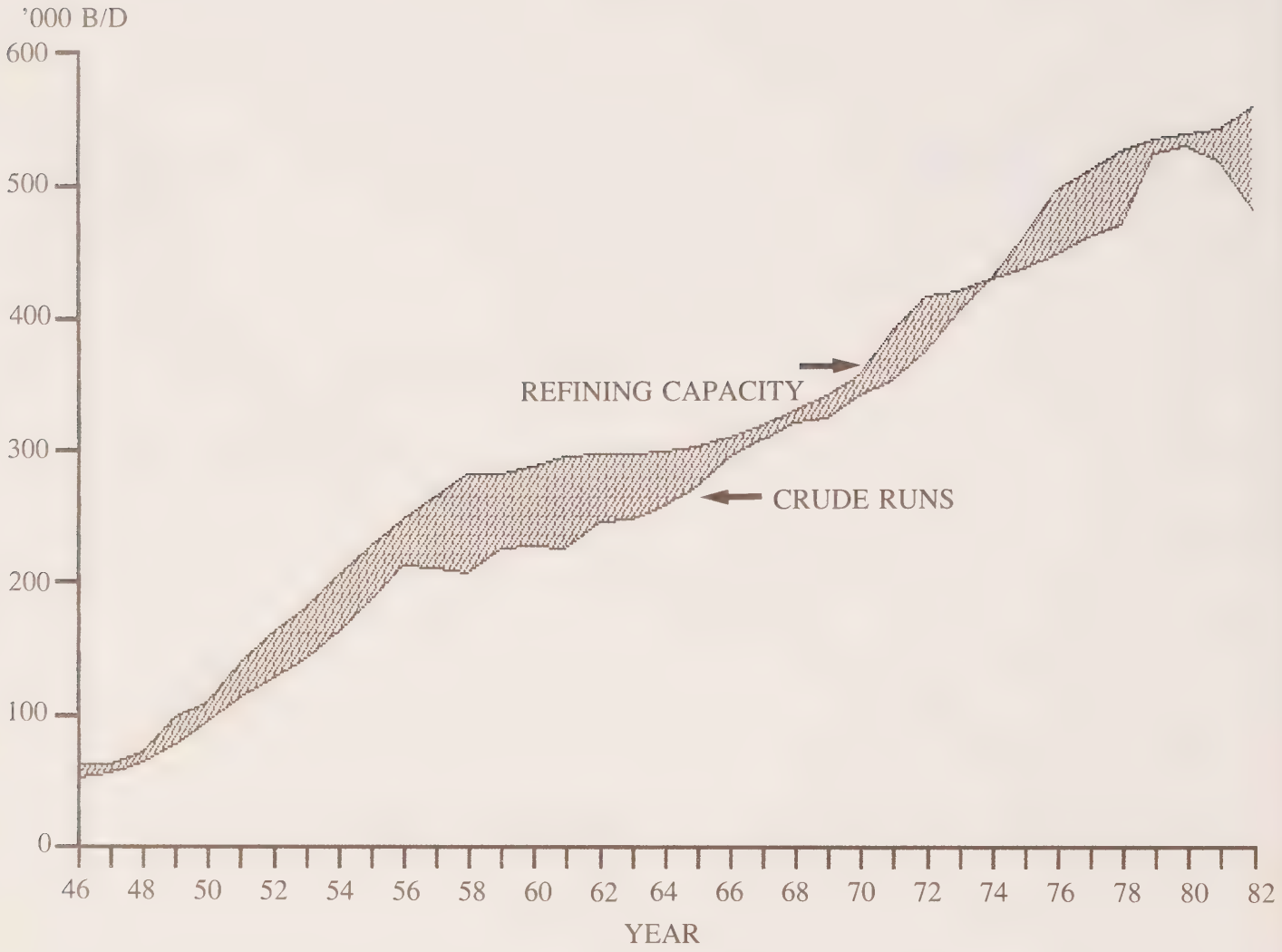


CHART I-E

Refining Capacity and Crude Runs
Western



Maps I to IV illustrate the various refining centres in Canada, the relative size of regional refining capacity and the main source of crude oil supply for the years 1946, 1958, 1973 and 1981.

B. Shifts in Product Demand

Perhaps the most significant development affecting refineries in the post-war period was a change in the composition of the product slate demanded by consumers. In brief, there was a shift to the ''top of the barrel,'' as demand for the light products such as gasoline, aviation fuel, diesel fuel and other middle distillate products grew rapidly. In addition, there was a shift in demand towards higher quality and higher octane gasolines to meet the increased compression ratios of automobile engines. And there was a demand for new products such as jet fuels and petrochemicals. Responding to this demand required substantial changes in refinery technology.

Crude oil is a complex substance containing many different hydrocarbons. In its simplest form, refining is a distillation process that causes separation of the components in the proportions in which they are found in the crude oil. This mix of products may not coincide with modern demand and may not meet modern quality demands. Additional processing alters the proportions and quality.

Gasoline, as it is produced from the primary distillation process of a refinery is not suitable for a modern automotive engine. While the light portion of the gasoline fraction can be separated and blended with other streams to create a useable product, the heavy portion requires upgrading. This is accomplished by a reforming process, generally using platinum as a catalyst, which converts this low grade component to a motor fuel ingredient with high octane properties.

Another important modern process is fluid catalytic cracking (FCCU). FCCU converts gas oil streams, which are heavier than middle distillates when distilled from crude oil, into light and heavy catalytic naphthas — the main components of modern day motor gasolines and middle distillates.

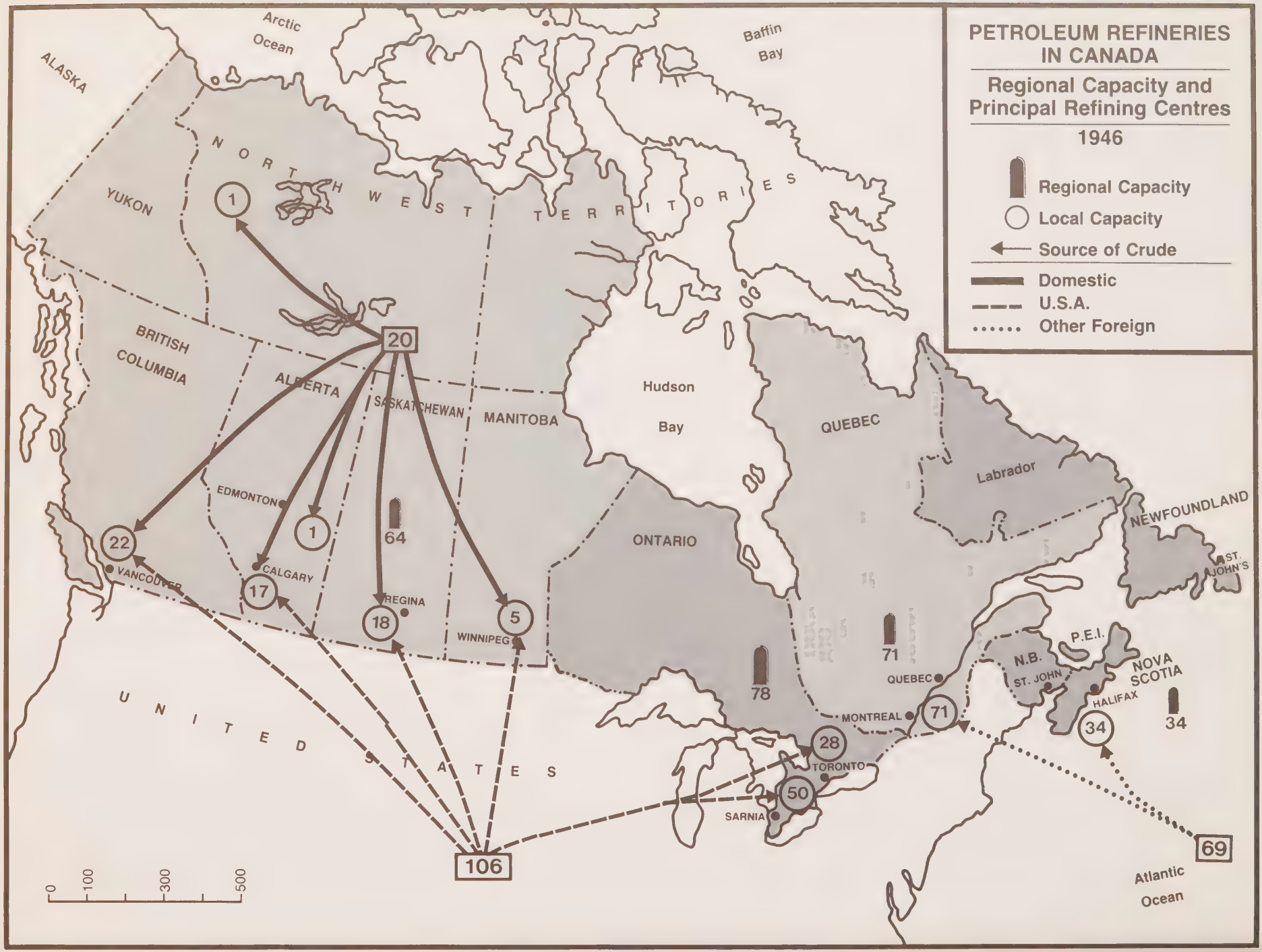
Certain of the hydrocarbon gases produced in the various refining processes, particularly the FCCU, also can be converted to high octane gasoline blending components by methods which employ catalysts to change the molecular structure of the gases to form products which are liquid at normal temperatures and pressures.

Gasoline streams from most of the operating units are subjected to further processing in treating plants which eliminate any corrosive or malodorous components. The material is finally blended into premium or regular grades of leaded or unleaded gasoline.

In addition to gasolines, refineries also produce propanes and butanes, naphthas and solvents, aviation gasolines, jet fuels, kerosenes (including stove oil), diesel fuels, home heating fuels, industrial fuels, asphalts, coke, and lubricating oils and waxes, using a variety of processes.

Petrochemicals and petrochemical feed stocks can also be made in refineries. Hydrocarbon materials, particularly the light fractions such as naphthas and gas streams, are segregated to provide a variety of feed stocks or the ''building blocks'' from which a host of petrochemical products can be made in secondary industries.

MAP 1


PETROLEUM REFINERIES IN CANADA
Regional Capacity and Principal Refining Centres
1946
Regional Capacity
Local Capacity
Source of Crude
Domestic
U.S.A.
Other Foreign
Arctic Ocean
Baffin Bay
ALASKA
YUKON
NORTH WEST TERRITORIES
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
Hudson Bay
QUEBEC
Labrador
NEWFOUNDLAND
ST. JOHN'S
ONTARIO
EDMONTON
CALGARY
VANCOUVER
REGINA
WINNIPEG
QUEBEC
MONTREAL
TORONTO
SARNIA
ST. JOHN
HALIFAX
N.B.
P.E.I.
NOVA SCOTIA
UNITED STATES
Atlantic Ocean
1
20
22
1
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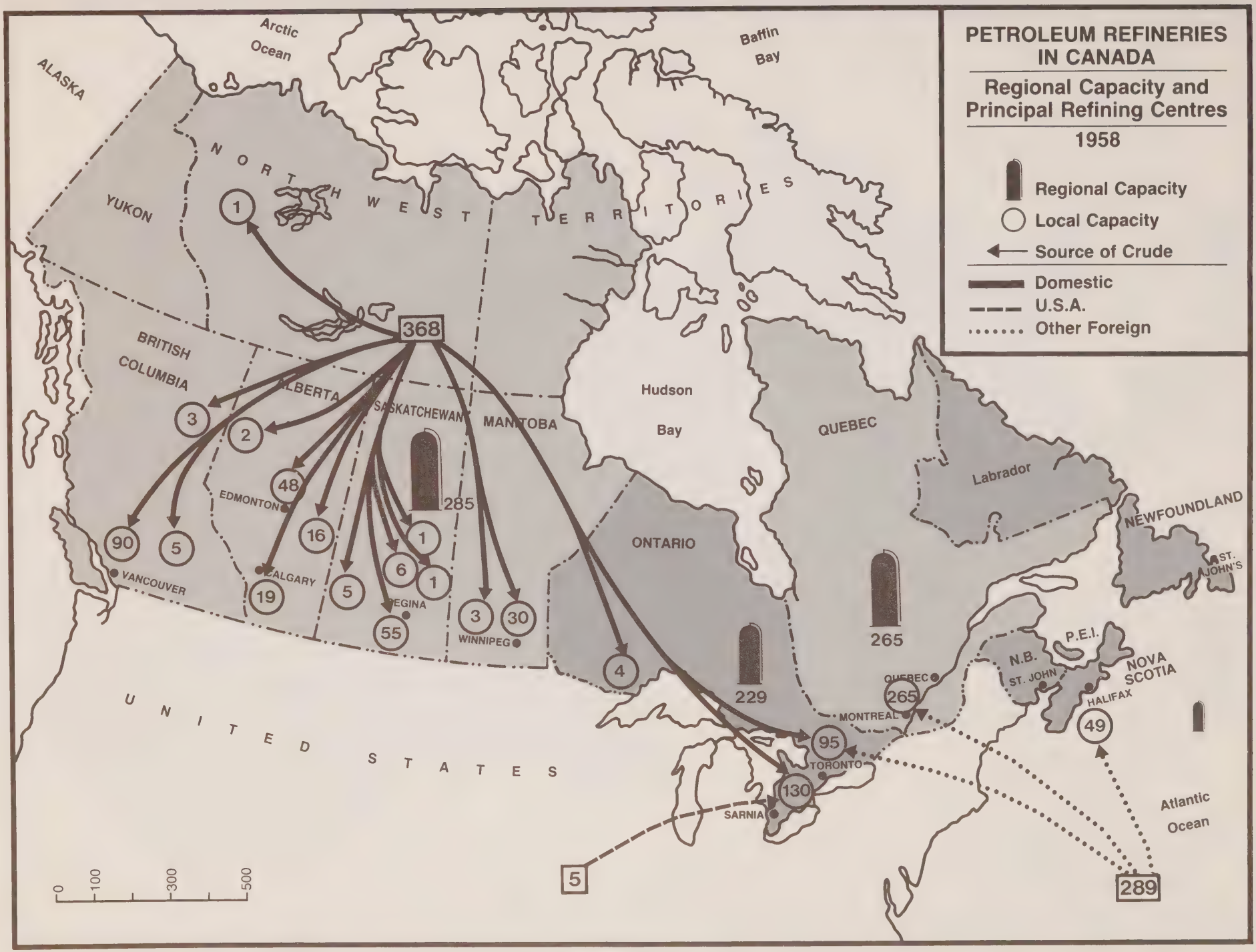
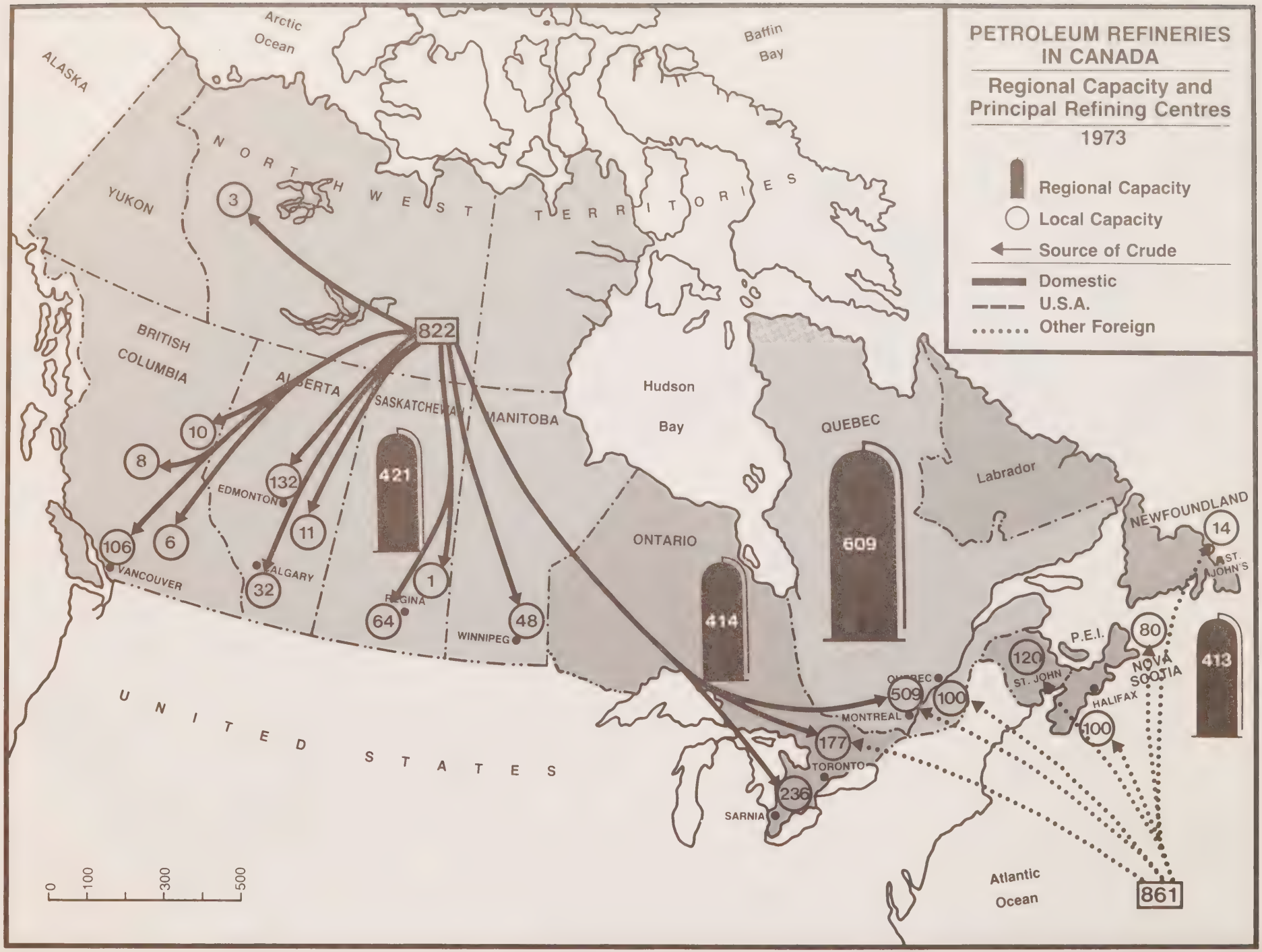
17
18
5
78
71
71
28
50
34
34
106
69
0
100
300
500


PETROLEUM REFINERIES IN CANADA
Regional Capacity and Principal Refining Centres
1958
Regional Capacity
Local Capacity
Source of Crude
Domestic
U.S.A.
Other Foreign
Arctic Ocean
Baffin Bay
ALASKA
YUKON
NORTH WEST TERRITORIES
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
Hudson Bay
ONTARIO
QUEBEC
Labrador
NEWFOUNDLAND
ST. JOHN'S
P.E.I.
N.B.
NOVA SCOTIA
ST. JOHN
HALIFAX
QUEBEC
MONTREAL
TORONTO
SARNIA
EDMONTON
CALGARY
REGINA
WINNIPEG
VANCOUVER
UNITED STATES
Atlantic Ocean
368
285
265
229
265
95
130
4
1
3
2
48
16
1
6
1
5
55
3
30
90
5
19
5
49
0
100
300
500
5
289

MAP III


PETROLEUM REFINERIES IN CANADA
Regional Capacity and Principal Refining Centres
1973
Regional Capacity
Local Capacity
Source of Crude
Domestic
U.S.A.
Other Foreign
Arctic Ocean
Baffin Bay
ALASKA
YUKON
NORTH WEST TERRITORIES
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
Hudson Bay
ONTARIO
QUEBEC
Labrador
NEWFOUNDLAND
P.E.I.
NOVA SCOTIA
UNITED STATES
Atlantic Ocean
822
3
10
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106
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132
EDMONTON
11
32
CALGARY
VANCOUVER
421
1
64
REGINA
48
WINNIPEG
414
609
509
100
MONTREAL
QUEBEC
177
TORONTO
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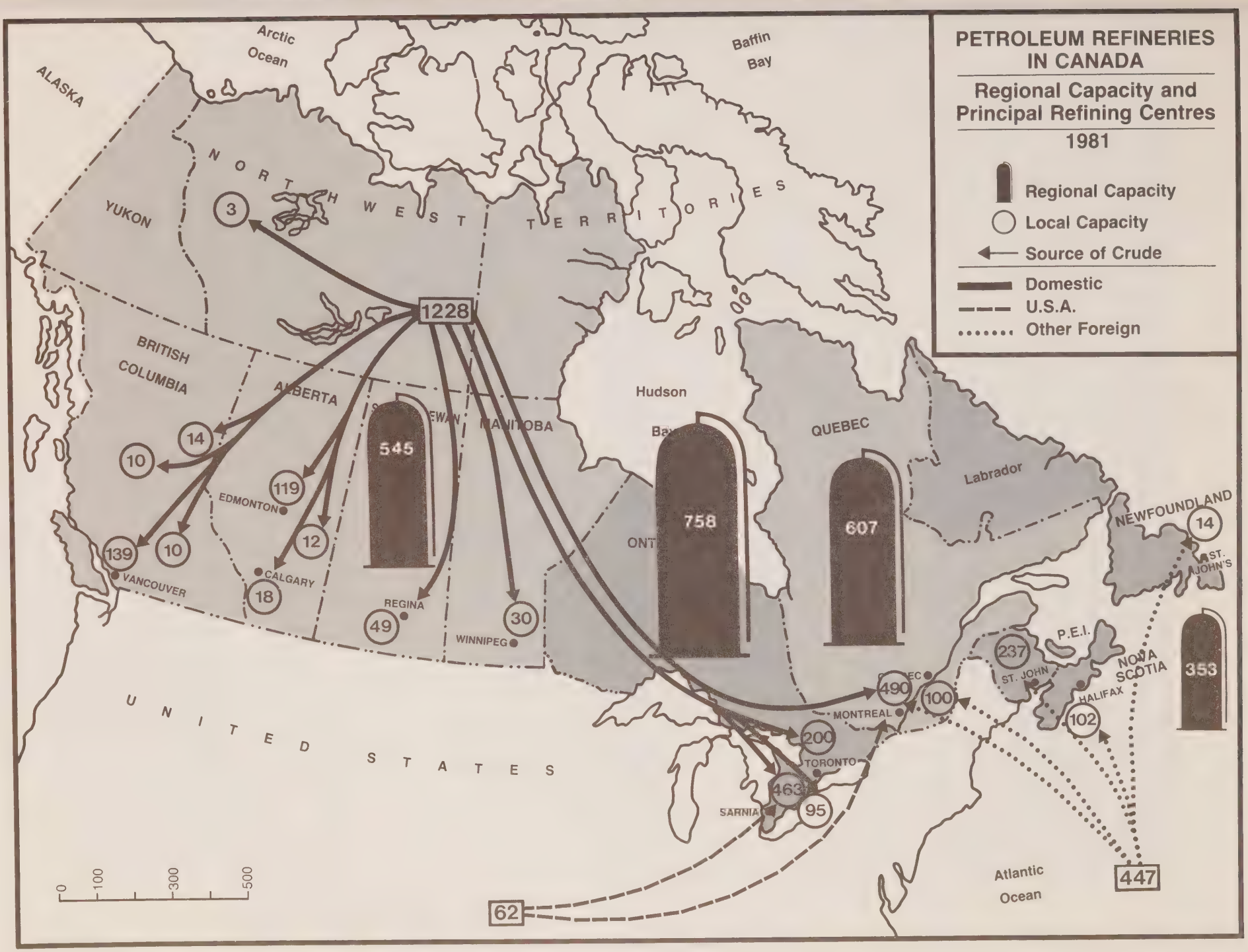
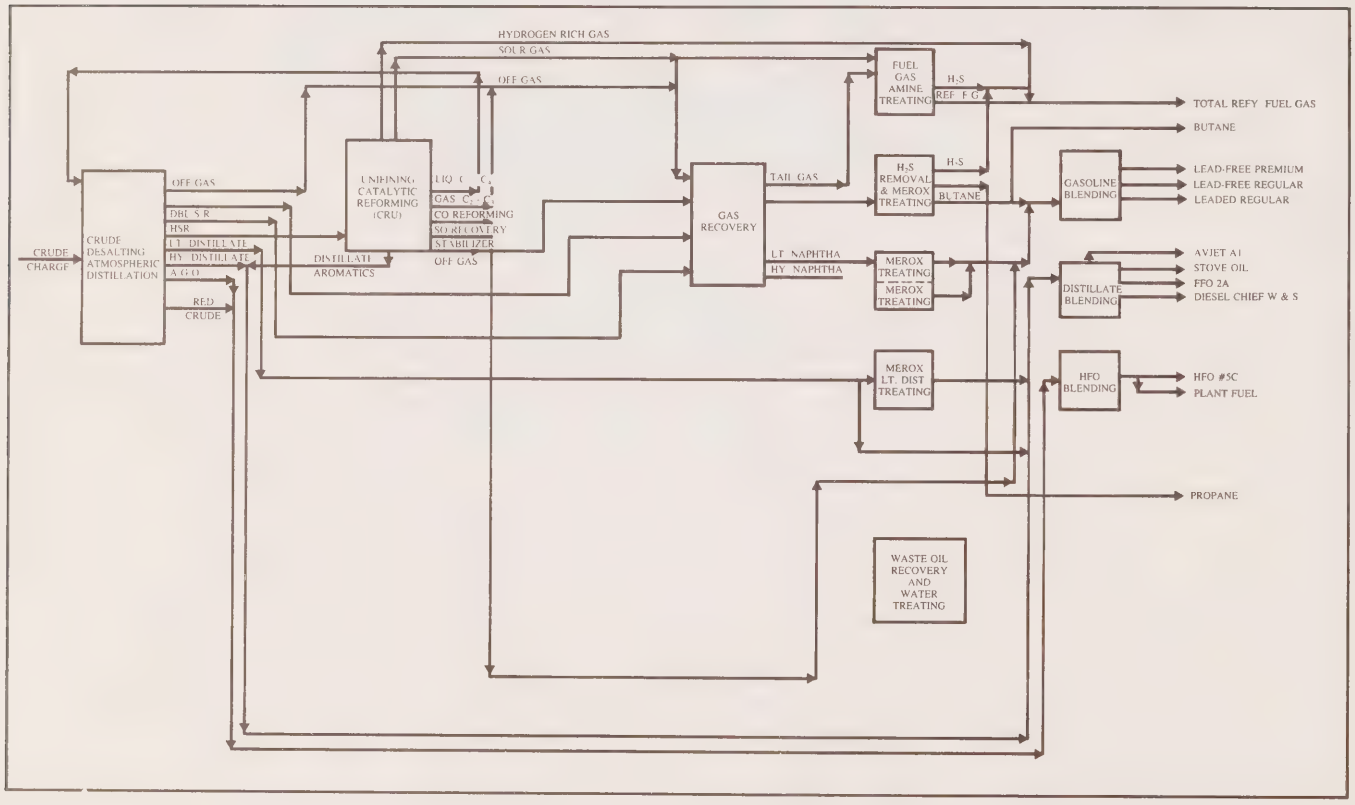
SARNIA
120
ST. JOHN
80
HALIFAX
100
14
ST. JOHN'S
413
861
0
100
300
500


PETROLEUM REFINERIES IN CANADA
Regional Capacity and Principal Refining Centres
1981
Regional Capacity
Local Capacity
Source of Crude
Domestic
U.S.A.
Other Foreign
Arctic Ocean
Baffin Bay
ALASKA
YUKON
NORTH WEST TERRITORIES
3
1228
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
Hudson Bay
ONTARIO
QUEBEC
Labrador
NEWFOUNDLAND
14
ST. JOHN'S
10
14
119
EDMONTON
545
758
607
139
10
12
VANCOUVER
CALGARY
18
REGINA
49
30
WINNIPEG
237
P.E.I.
ST. JOHN
NOVA SCOTIA
353
HALIFAX
490
100
MONTREAL
102
200
TORONTO
463
95
SARNIA
UNITED STATES
0
100
300
500
62
Atlantic Ocean
447

The processing equipment used in the Canadian refining industry at the beginning of the post-war recovery period was far less advanced than the equipment in common use today. Progress in refining technology has been continuous, responding in particular to the demand for light products. But the industry in 1946 also lagged behind the refining industry in the United States, largely as a result of strategic decisions taken during the war.[1] Twelve of the thirty-one refineries operating in Canada at the beginning of the post-war recovery period were of the topping or skimming type, and accordingly lacked cracking capability. While representing nearly 40 percent of the number of refineries, the combined daily crude oil capacity of these topping plants represented only 9 percent of the total capacity in Canada.

EXHIBIT I-I

Topping Plant
Block Flow Diagram



In the typical topping plant shown in Exhibit I-I above, four basic groups of products may be obtained from the primary stage of separation near atmospheric pressure.

1) Mixed hydrocarbon gases;
2) Light and heavy gasolines;
3) Light and heavy distillates; and
4) Heavy residuals.

The light gasoline fraction is suitable for blending into motor fuels. The heavy gasoline fraction is not suitable, and requires hydrotreating and further processing in a catalytic reforming unit. In the presence of platinum, 90 percent of the heavy gasoline stream is converted from a low to a high octane motor fuel component. The balance of the output consists of gases which are recovered for sale as propane or butane, or are used in the plant for the removal of sulphur from certain products or as fuel to operate the general refining processes. The gas streams which are derived from the initial crude oil distillation are co-mingled with those from the catalytic reforming operation.

If crude oils having a high sulphur content are being run, the distillate streams pass through a treating plant where the sulphur is reduced in the presence of a mixed metal catalyst prior to sale.

The mixed gas oils and reduced crude oil which remain in the bottom of the atmospheric distillation unit are drawn off to be sold as heavy fuel oil or used if necessary to supplement the gas streams that are consumed as fuel in the refining processes.

Topping plant operations generally can be adjusted to yield the following mixture of products when processing crude oils in the 30-32° API gravity range:

TABLE I-1

Topping Plant
Approximate Range of Gasoline and Distillate Yields
from Crude Oil of 30-32° API Gravity

	Percent Maximum Gasoline	Percent Maximum Distillate
Gasolines	24	15
Distillates	21	30
Residual products	50	50
Plant fuel and misc.	5	5
Total	100	100

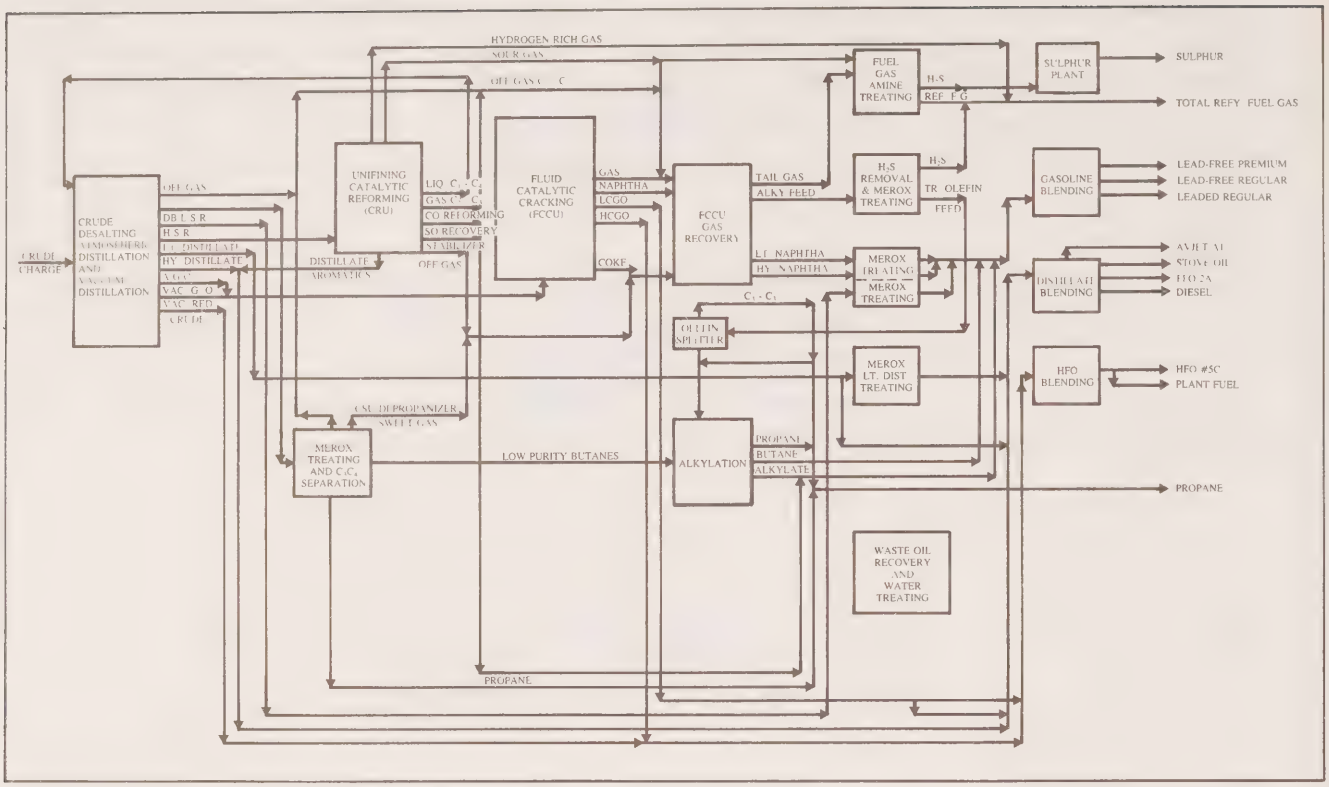
The topping plant produces too much residual fuel oil and too little gasolines and distillates to meet present day consumer needs.

Cracking capability, therefore, is important to the modern refiner.

A typical cracking plant produces greater amounts of hydrocarbon gases in addition to gasolines, distillates and residual products. It does so, however, by use of a much more complex and capital intensive refining process that converts a substantially greater portion of crude oil into the lighter products which constitute the bulk of demand in the marketplace of Canada. The increased complexity may be seen by comparing Exhibit I-I preceding to Exhibit I-II, following:

EXHIBIT I-II

Cracking Plant
Block Flow Diagram



A typical cracking plant generally yields the following mixture of products when processing crude oils in the 35-37° API gravity range:

TABLE I-2

Cracking Plant
Approximate Range of Gasoline and Distillate Yields from Crude Oil of 35-37° API Gravity

	Percent Maximum Gasoline	Percent Maximum Distillate
Gasolines	55	40
Distillates	25	41
Residual products	12	12
Liquified petroleum gases	4	3
Plant fuel and loss/(gain)	4	4
Total	100	100

The improved yield of lighter products is readily apparent when one compares Table I-2 with Table I-1.

The most distinguishing feature is the catalytic cracking unit, in which the medium gravity gas oils, which would become part of the heavy fuel oil stream in a topping plant, are converted into lighter products. The gasoline output from a fluid catalytic cracking unit can be altered significantly by raising or lowering the heat in the reactor chamber, to provide the following range:

TABLE I-3

Fluid Catalytic Cracking Unit
Approximate Range of Gasoline Yields from Feed Stocks

	Percent Maximum Gasoline	Percent Maximum Distillate
Mixed gas streams	25	7
Gasolines	63	43
Distillates	14	32
Heavy fuel oil and coke	10	24
Volumetric gain	(12)	(6)
Total	100	100

Other distinguishing features of the cracking plant are a vacuum distillation unit and, in this example, an alkylation plant. There are elaborate systems for the segregation and recovery of refinery gas streams and the treating of both gas and liquid streams to improve their quality. Included is a sulphur recovery unit to further improve the quality of plant emissions for environmental reasons.

Other processes may be employed in cracking type refineries depending in part upon the quality of the crude oil being processed, the nature of the market served by a particular refinery and the marketing strategies employed by the company.

These processes might include one or more units designed to materially alter the yield of products, to separate and recover products for which there is a new or growing demand and to improve the quality of the products provided for use in the marketplace. Among the available processes are the following:

(a) Vis-breaking: a low pressure thermal cracking process by which about one-quarter of the heavy fuel oil which the refinery would otherwise produce is converted to lighter products.

(b) Delayed coking: a low pressure thermal cracking process by which virtually all of the heavy fuel oil which the refinery would otherwise produce is converted to lighter products (70 percent) and to solid coke (30 percent).

(c) Hydrocracking: a catalytic cracking process conducted at high pressure in the presence of hydrogen. This process permits greater flexibility in the yield ratio of gasolines to other products, and improves the quality of all of the products made.

(d) Hydrotreating: a process whereby light hydrocarbon products are combined with hydrogen and then passed through a bed of catalyst, often cobalt molybdenum, for the removal of undesirable substances such as sulphur or metals to provide better quality fuels.

In addition, a modern refinery may have an associated lubricating oil plant, a complex operation which uses solvents, chemicals or hydrogen to extract, de-wax and treat base stocks from which lubricating oils and greases are manufactured. Paraffin waxes may also be obtained from this process.

Modern technology increases the ability of a refinery to alter the yield of products made from crude oils. Due to the wide seasonal variation in demand in Canada, it has been customary to change the yields to decrease gasoline output in the winter and increase it in the summer.

Most of the refineries equipped with conventional fluid catalytic cracking units can alter the yield of gasoline by about 15 percent of the crude oil runs. Some refineries in Canada are equipped with hydrocracking facilities to achieve an even greater variation in yields.

Since refinery capacity is determined by looking to average annual demand for products, rather than the peak demand needed to meet seasonal requirements, it is necessary to provide tanks in which to hold the products made at times when the market cannot absorb all the daily output.

Refining operations combining the flexibility of the yield pattern and the use of marketing storage facilities usually follow a daily crude oil running pattern, established in advance, based on forecasts of market demand and expected company sales.

When product demand shifts slowly, adjustments generally can be made to the product slate to correct for over or under supply situations. When product demand shifts quickly, as might occur with an unexpected gain or loss of certain business or with unusual and prolonged climatic conditions, the refinery may not be able to respond to correct the situation, especially if more volume is required and the plant is operating at or near its capacity. Arrangements to obtain or dispose of product may be necessary to meet supply obligations or avoid storage problems.

The success of the cracking plant in meeting the needs of Canadian consumers explains the fate of the topping plants.

At the end of 1982, three of the twelve topping refineries of 1946 were still operating, but only one of them as a topping plant. Cracking facilities had been added at the other two. Nine of these plants were closed because they were unable to compete with the large scale refineries possessing facilities better suited to the demands of the marketplace.

Between 1946 and 1982, fifteen new topping plants were built in Canada. Nine of these have since been closed, including two large scale plants which had been expected to export a substantial part of their output. Cracking facilities were added or were under construction at three of the remainder, leaving only three of this more recent group of topping plants still operating as such today. Two of these serve a special purpose — the Husky plant at Lloydminster refines heavy crude oil from local oilfields, and the Petrosar plant at Sarnia strips petrochemical feed stocks from a mixture of crude oils and natural gas liquids.

Thus, the history of petroleum refining in Canada indicates that, with but few exceptions, topping plants, despite their significantly lower initial capital costs compared to the more sophisticated cracking type refineries, are generally unable to compete effectively to meet the special requirements of the marketplace in Canada.

Refining companies have responded to the needs of the marketplace during the past 36 years. They have modernized their facilities, increased the quantity and improved the quality

of conventional products, and added other facilities for the production of new products, including a wide range of petrochemicals and petrochemical feed stocks.

In 1946, Canadian refineries converted 41 percent by volume of the crude oil and equivalent which they processed into gasolines, 19 percent into distillates (a ratio of 2.2 to 1), for a combined yield of 60 percent, while making 25 percent residual products, 8 percent other products, and consuming 7 percent as fuel in the process.

Three types of motor gasolines were made: leaded premium, leaded regular and a lower grade, generally lead-free, for use in certain farm machinery. The premium and regular gasolines, with research octanes of about 85 and 80, provided adequate anti-knock properties for motor car engines which at that time had an average compression ratio of 7 to 1.

By 1958, the combined yield of the light products was substantially improved over the results achieved in 1946. Gasolines constituted 36 percent of the output, distillates represented 31 percent, and gasoline or kerosene type jet fuels amounted to 2 percent, for a combined total of 68 percent from the crude oil and equivalent processed in that year. The yield of residual products dropped to 18 percent, other products to 6 percent, while fuel consumed remained at about 7 percent.

The average compression ratio of automotive engines reached 9½ to 1 by the end of the 1950's, and motor gasoline quality was improved in response, with octane levels of 99 and 92 generally being available. The product slate demanded by Canadian consumers has changed comparatively little in more recent years, although the quantity demanded continued to grow until very recently.

Table I-4 portrays the strides made by the industry in Canada during 35 years of progress in expansion of capacity, the addition of new products and the more effective use of crude oil to provide the right mix of products for Canada's petroleum needs.

TABLE I-4

Products made from Crude Oil in Canadian Refineries

	1946		1958		1973		1981	
	'000 B/D	percent	'000 B/D	percent	'000 B/D	percent	'000 B/D	percent
Naphthas	2		3		20		13	
Aviation gasolines	1		1		4		4	
Motor gasolines	79		236		550		657	
Gasolines	82	41	240	36	574	34	674	38
Jet fuels	—	—	12	2	58	3	79	5
Kerosenes	12		35		72		23	
Diesel	10		62		190		249	
Furnace fuel oil	15		106		252		222	
Distillates	37	19	203	31	514	31	494	28
Heavy fuel oil	42		93		313		249	
Asphalt	7		25		49		53	
Coke	1		2		3		4	
Residuals	50	25	120	18	365	22	306	17
Lubricants	4		5		9		16	
L.P.G's			7		22		32	
Petrochemical feed	11		13		33		89	
Miscellaneous			16		21		6	
Other	15	841	6	85	5	143	8	
Conversion fuel	13	7	43	7	86	5	66	4
Total	197	100	659	100	1,682	100	1,762	100

C. Developments in the Transportation of Oil and Petroleum Products

Refineries must deliver the products to a 700,000 square mile marketplace which stretches 3,200 miles from coast to coast.

Petroleum companies have learned to move petroleum, and its sometimes hazardous products, utilizing crude oil and products pipelines, tankers, barges, package freighters, tank cars, tank trucks, package trucks, and even aircraft from the point of production to the point of consumption in a timely manner, with quiet and orderly efficiency and with a high degree of regard for personnel and public safety.

Both the scale and the location of refineries depend on the transportation systems available for moving crude oil and products, and efficiency in scale and location depend on the cost of transportation. Transportation systems changed substantially in the post-war period, and refineries also changed.

At the beginning of the post-war period, refineries in Eastern Canada and on the west coast were located on waterways to take advantage of the then most economical method of receiving crude oil supplies and delivering finished products to major distribution centres.

Refineries in the Prairies were located mainly in the large cities or close to such crude oil sources as had been found prior to the Leduc discovery. The choice of sites for refineries at that time reflected the need for good rail facilities with which to handle incoming crude oil and outgoing products by the least expensive method then available.

Between 1946 and 1958, the petroleum industry made the first of Canada's major oil discoveries, and the principal producing areas grew rapidly following the initial discovery in 1947. Pipelines were built to gather crude oil from the producing areas, and large scale trunk lines were constructed to carry the crude oil to refining centres located some 1,900 miles to the east and 700 miles to the west coast. A products pipeline system was built to carry finished products from the Montreal refineries to major distribution centres as far west as Hamilton, Ontario. New, larger and more efficient tankers were constructed to carry products in the Great Lakes, on the St. Lawrence River and in the coastal trade. Some large tankers which had been built to carry crude oil from the lakehead to refineries in Ontario prior to the extension of the Interprovincial pipeline system from its initial termination point at Superior, Wisconsin, were converted to product carriers when the final leg of that pipeline system reached Ontario.

Between 1958 and 1973, capacity of the main trunk line carrying crude oil to eastern Canada was greatly increased and a large scale loop was constructed to bring additional supplies into Ontario and at the same time, serve more markets in the United States, mainly the big refining complex in Chicago. The St. Lawrence Seaway, completed in 1959, permitted much larger capacity lake tankers and some ocean tankers to pass freely between the River and the Lakes system carrying about 11-12,000 tons of crude or product — about 4 times greater than through the old Lachine canal system.

Also, crude oil gathering and trunk pipelines were built to carry newly discovered oil into the initiating terminals of the major pipeline systems or to distribution points along the way. Jumbo tank cars of 20,000 gallons capacity replaced a large portion of the traditional fleet of tank cars in the 5,000-8,000 gallon range. Refineries were also called upon to load tank trucks of up to 11,000 gallons capacity. Lake and coastal tankers having the ability to navigate through heavy ice conditions permitted an extended shipping season.

The major transportation development since 1973 was the extension of the Interprovincial pipeline system to carry domestic crude oil to Montreal, a project undertaken at the request of the Government of Canada.

In summary, the main developments in transportation affecting refineries in the post-war period were the following:

Pipelines

- larger batches of crude oil received
- larger batches of products delivered

Tankers

- increased size of vessels
- the opening of the St. Lawrence Seaway
- longer shipping season by use of vessels with hulls reinforced sufficiently to operate in ice filled waters

Tank cars and trucks

- introduction of jumbo tank cars
- introduction of large size tank trucks, trailers and "pups"

These developments made it possible for the growing petroleum needs of the Canadian public to be met without a material increase in the number of refineries, and therefore allowed the public and petroleum industry to benefit from the substantial economies of scale available in refining. The transportation system allowed large refineries to obtain their crude oil and distribute their products efficiently.

Increased Canadian production of crude oil, together with the development of pipeline facilities to transport it, had further implications for refineries: it changed the nature of the input processed. Canadian crude oils differ in composition from the imported crude oils traditionally used in some Canadian refineries. Changes in the composition of the input stream require changes in refining technology. Similarly, government policies, in particular government-to-government crude oil supply agreements and the resulting allotment of foreign crude oils to refiners, affected the quality of the crude oil input. Much of the oil allotted had a high sulphur content, which requires special treatment in refining. The demands placed on refineries by these changes in the input stream are, however, not further considered in this submission.

D. Increased Investment

The post-war growth and transformation of the Canadian refining industry required massive capital investments, which were provided both by existing refiners and by new entrants.

The cost of all the plant, property and equipment employed in the refining industry in Canada at the beginning of the post-war recovery period probably did not exceed $125 million. Investment in the average size refinery approximated $4 million, equivalent to a cost of about $500 per barrel of daily capacity.

Between 1946 and 1958, an investment of about $800 million was made to upgrade refineries and increase the crude oil running capacity by about 600,000 barrels daily — equivalent to an average of approximately $1,300 per daily barrel.

The increase in per barrel investment requirements over the post-war period is attributable, generally speaking, to three factors: process improvements, which justify their higher costs through improved yields of more valued products; improved safety and environmental standards; and inflation, which has affected all costs.

The average crude oil running capacity increased to 20,000 barrels daily — two and one-half times as large as in 1946 — and there emerged a generation of refineries having greatly increased and improved cracking facilities. Most major refineries were equipped with catalytic cracking units to derive a larger yield of the light products — gasolines and distillates — from the crude oils processed.

From 1958 to 1973, the industry invested about $2.3 billion to improve product quality, build petrochemical facilities and increase crude oil capacity by slightly more than one million barrels daily. The cost per daily barrel of this new capacity was about $2,200.

The average crude oil running capacity of Canada's refineries more than doubled to 44,000 barrels daily during this period.

Refineries continued to add facilities with which to upgrade the quality of conventional products and to make new products, including a wide variety of petrochemicals. Many of these additions consisted of improved fractionation to extract products which otherwise would have been entrained in products of lesser value or of catalytic processes with which to rearrange the molecular structure of hydrocarbons, permitting them to emerge as greater volumes of products with enhanced value.

Between 1973 and 1980, the cost of building refining facilities increased dramatically. The industry spent $3.1 billion to upgrade facilities and provide for an additional crude running capability of 650,000 barrels daily, the cost of which was equivalent to about $4,750 per daily barrel.

The average crude oil capacity of Canada's refineries reached about 60,000 barrels daily — about ⅓ greater than in 1973 — and comparable in size to the average capacity of refineries in the United States.

Throughout most of this period, refiners continued to build facilities to upgrade hydrocarbon streams and add crude oil running capacity through expansion of old plants or the building of new refineries. For example, Texaco Canada's ''grass-roots'' refinery at Nanticoke, Ontario, was completed at about the three-quarters point in this time period, at a cost of about $½ billion or $5,100 per daily barrel of crude oil capacity.

In all, more than $6 billion was invested in the building and upgrading of refining facilities in Canada between 1946 and 1980. Construction costs have continued to escalate since then, and huge sums of money would now be required to invest in the type of refining facilities which meet the mix of products demanded in the marketplace, the standards of product quality, and the stringent environmental standards prevailing today.

An estimate prepared recently by Texaco Canada indicated that the company's Nanticoke plant, which was completed only 4½ years ago at a cost of about $500 million, has a present day replacement value of approximately $1.3 billion, equivalent to about $14,000 per daily barrel of capacity — 2¾ times its original cost.

The era of expansion came to a close in the late 1970's, following the extraordinary increases in the price of crude oil engineered by the OPEC cartel.

As a result of further price increases, demand for petroleum began to abate as consuming countries promoted conservation practices or switched to competing fuels.

During the first few years of the 1980's, refineries in Canada were affected to such an extent by the decrease in petroleum demand and the general economic recession that several plants were closed, and announcements were made of planned closings of other plants.

This decrease in demand does not eliminate the continuing need for investment in modernization of refineries.

E. The Rise of the Regional Refiners

The post-war growth of the refining industry called for expansion by existing refiners, but it also created opportunities for others to enter the industry. Both groups responded, and in the period since 1946, together they have changed the shape of the industry.

In 1946, as already noted, the refining industry in Canada consisted of 31 refineries with an aggregate capacity of 247,000 B/D and an average capacity of about 8,000 B/D. Table I-5

shows how this capacity was distributed among firms: 90 percent was held by the companies which were then or were later to become the four national marketers of petroleum products.

TABLE I-5

Operating Refineries in Canada
Analysis of Capacity and Ownership
1946

	Plants	Crude Oil Capacity	Average Capacity	Share of Capacity
	number	'000 B/D	'000 B/D	percent
Imperial	7	137	20	56
Gulf	5	33	7	13
Shell	2	15	7	6
Texaco	2	36	18	15
	16	221	14	90
All Others	15	26	2	10
Total	31	247	8	100

Between 1946 and 1958, the four largest companies increased their manufacturing capacity by some 417,000 B/D, each expanding the capacity of those plants which were expected to best serve its predicted future needs.

The number of refineries these companies operated increased from 16 to 20 as a result of the building of two new refineries and the purchase of four refineries from other companies. Two obsolete plants in Toronto were closed.

Several new companies, including Petrofina, Sun Oil and Cities Service, entered the petroleum markets in Canada and constructed major refining facilities in support of their marketing efforts.

These new facilities, along with the expansion of facilities by some established companies other than the four largest, added some 164,000 B/D to Canadian refining capacity. This represented nearly a sevenfold capacity increase for these regional marketers, as compared to slightly less than a threefold increase in the national marketers' capacity.

As a result, the share of refining capacity held by the four national marketers declined from the immediate post-war level of 90 percent to 77 percent by 1958. While the share of the capacity of the other companies more than doubled to 23 percent, the average capacity of their refineries remained low in comparison to the four national marketers. Table I-6 provides additional data concerning Canada's refining industry in 1958:

TABLE I-6

Operating Refineries in Canada
Analysis of Capacity and Ownership
1958

	Plants	Crude Oil Capacity	Average Capacity	Share of Capacity
	number	'000 B/D	'000 B/D	percent
Imperial	9	319	35	38
Gulf	6	146	24	18
Shell	2	82	41	10
Texaco	3	91	30	11
	20	638	32	77
All Others	22	190	9	23
Total	42	828	20	100

During the following fifteen years — the time examined by the authors of the Green Books — Canada's four largest petroleum companies continued to expand their refining capacity through a combination of new plant building or the acquisition of existing facilities. Two of the companies, Shell and Texaco Canada, finally became truly national marketers as their marketing reach extended to all the ten Provinces.

Refineries operated by these four companies increased to 27 by the end of 1973, compared to 20 in 1958; capacity rose to 1,226,000 B/D, almost doubling the 1958 figure of 638,000 B/D.

Despite this increase, their share of the industry's capacity continued to decline, reaching 70 percent in 1973. New regional refiners entered the market; established regional refiners expanded to provide a threefold increase in total regional refiner capacity. The number of refineries operated by the regional companies declined from 22 in 1958 to 13 in 1973. The regional refiners built six new refineries between 1958 and 1973, and they closed and abandoned 15 refineries which could no longer operate economically. Refineries operated by regional marketers achieved an average capacity approximately equal to those operated by their national competitors.

TABLE I-7

Operating Refineries in Canada
Analysis of Capacity and Ownership
1973

	Plants	Crude Oil Capacity	Average Capacity	Share of Capacity
	number	'000 B/D	'000 B/D	percent
Imperial	9	473	53	27
Gulf	8	328	41	19
Shell	6	275	46	16
Texaco	4	150	37	8
	27	1,226	45	70
All Others	13	531	41	30
Total	40	1,757	44	100

Finally, during the period from 1973, when the world price of crude oil began to escalate rapidly, until 1981, when the demand for petroleum products in Canada turned sharply downward, the four largest companies' share of operating capacity declined to 57 percent of the total.

As shown in Table I-8, the number of refineries operated by these companies decreased to 23 — 4 less than in 1973 — and the aggregate capacity rose by only 5 percent.

The number of refineries operated by regional companies increased to 14 and their aggregate capacity rose by about 80 percent to reach 970,000 B/D. For the first time, the average size of refineries operated by this group exceeded the average size of refineries in the national group.

TABLE I-8

Operating Refineries in Canada
Analysis of Capacity and Ownership
1981

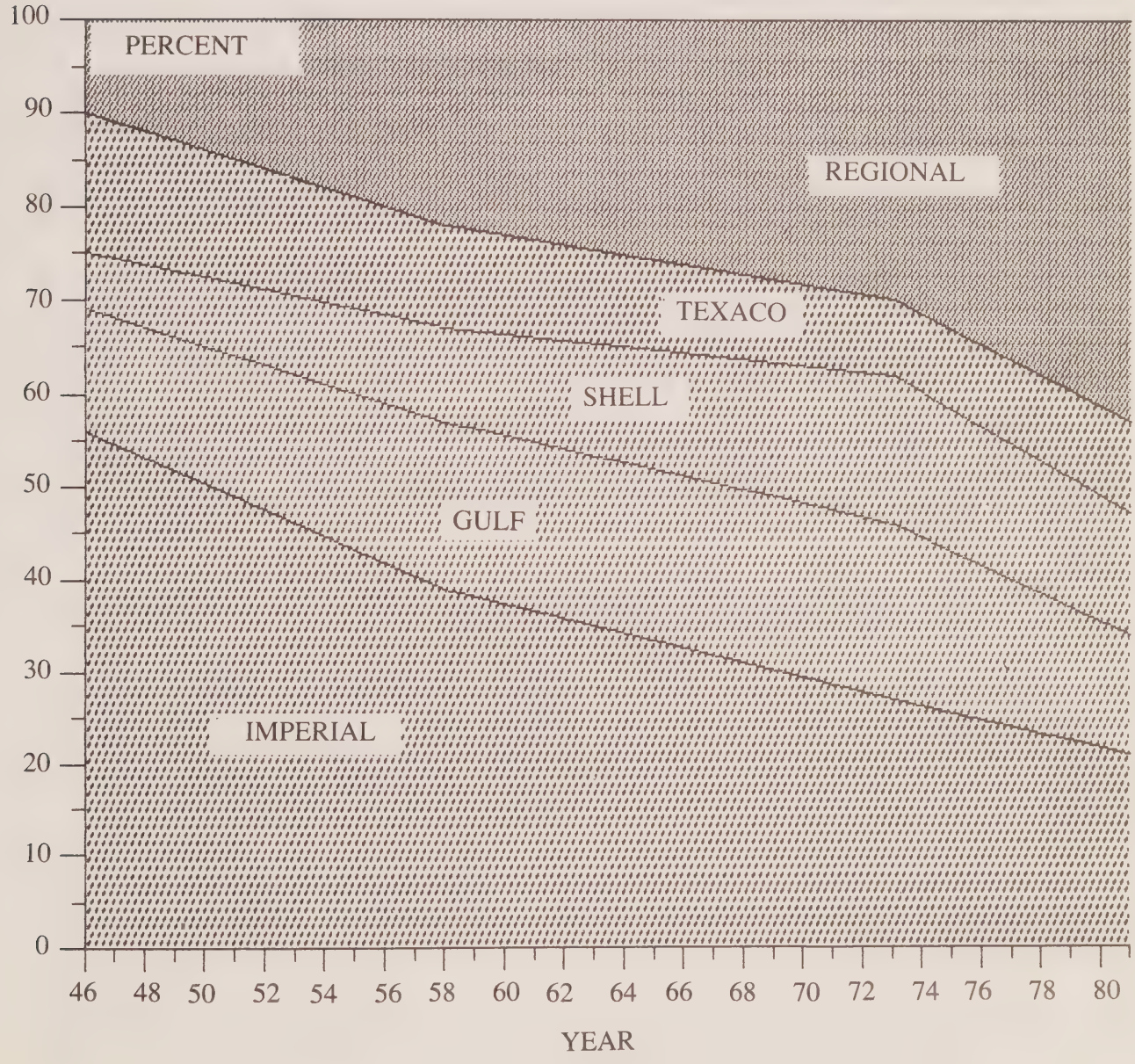
	Plants	Crude Oil Capacity	Average Capacity	Share of Capacity
	number	'000 B/D	'000 B/D	percent
Imperial	6	483	80	21
Gulf	7	295	42	13
Shell	6	297	49	13
Texaco	4	214	53	10
	23	1,289	56	57
All Others	14	970	69	43
Total	37	2,259	61	100

The share of operating capacity held by the four national refiner-marketers, 90 percent in 1946, was down to but 57 percent in the early 1980's; the regional companies' share rose from 10 percent to 43 percent over the same period.

Chart I-F summarizes the data on percentage ownership of petroleum refiner capacity for each of the national refiner-marketers and for the regional refiner-marketers as a group. Of the four national companies, the share of total Canadian capacity increased for Shell, remained constant for Gulf and declined for Imperial and Texaco Canada.

CHART I-F

OPERATING REFINERIES IN CANADA
Percentage Ownership of Total Capacity
Held by the Four Individual National Marketers
and the Group of Regional Marketers



These data reflect the results of radically expanded demand for petroleum products. That demand created business opportunities for the established refiner-marketers, but it also created the opportunity for new companies to enter the industry with modern refineries of efficient scale. These new entrants were able to compete vigorously with the established competitors. As the data make clear, the new entrants seized that opportunity and won a considerable share of the market.

Companies were free to enter the refining field in Canada and did so with varying degrees of success. Those companies with adequate skilled manpower and adequate capital survived. Those without the necessary resources, determination and courage either discontinued operations or sold their assets to others.

F. Texaco Canada's Refining Facilities

The development of Texaco Canada's refining facilities in the post-war period illustrates the growth and technological transformation of the industry as a whole.

At the beginning of the post-war period in Canada, Texaco Canada was the second largest refiner in terms of crude oil capacity.

It held about 15 percent of the total crude oil refining capacity then installed in Canada, and it sold about 23,000 barrels daily of petroleum products, approximately 10 percent of total consumption.

The company operated two refineries in 1946, one in Toronto with a capacity of 12,000 B/D and one in Montreal with 24,000 B/D. Both had been operating for 20 years or more and had been pushed hard during the war years to supply essential fuels; to remain competitive, expansion and upgrading were required.

The company's largest markets were in Quebec and Ontario, where its two refineries were located. These areas accounted for 87 percent of Texaco Canada's sales of all petroleum products — compared to about 60 percent for the industry as a whole — while sales in the Atlantic region and the West, consisting chiefly of gasolines and lubricants, accounted for the balance.

The Toronto refinery produced approximately 7,600 barrels daily of products, about two-thirds of the company's requirements in Ontario during 1946.

Despite the importance of its output, the company decided to close the Toronto refinery which was located on a relatively small site of less than 100 acres and therefore could not easily be expanded. Instead, it decided to expand and upgrade the Montreal refinery sufficiently to serve all of the company's petroleum markets in the Atlantic Provinces, Quebec, Ontario and a small part of the West. The Toronto refinery was closed at the end of 1949.

In 1946, the Montreal refinery supplied approximately 14,000 barrels daily of products for the company's markets in the Atlantic region, Quebec, and the remaining one-third of the requirements in Ontario.

Products from this plant were carried down the St. Lawrence River in lake tankers to marine terminals in Quebec and the Atlantic region, by road and rail into parts of Quebec and the Ottawa Valley area of Ontario, and by lake tanker through the Lachine canal system to marine terminals located on the Great Lakes as far west as Thunder Bay.

In those early years the company did not have a refinery in Western Canada. Nevertheless, it actively competed as a marketer in the area. Most product supplies were purchased from local refiners or imported from nearby refining centres or marine terminals in the United States. Supplies were moved by road, rail and, on the west coast, by water.

The company's markets for lubrication oils and greases were served from Toronto — the largest plant — or from smaller plants in Halifax, Montreal, Winnipeg, Calgary and Vancouver. The products were made from stock oils and other ingredients imported from the United States or obtained from domestic sources.

In 1951, four years after the discovery of a major oil field in Alberta, Texaco Canada constructed a refinery at Edmonton with an initial rated crude oil capacity of 5,500 barrels daily (and planned expansion capability) and began distributing products of its own manufacture through all of the Western Provinces except Vancouver Island and the lower mainland of British Columbia. Initially, the company used its marine terminal at Barnet to supply the former area with products imported from the United States, but later discontinued this practice in favour of obtaining supplies from domestic refiners in the Vancouver area.

In 1957, Texaco Canada acquired the assets of Regent Refining (Canada) Limited through an exchange of shares. With the Regent acquisition, the company obtained the 8,000 B/D refinery at Port Credit; construction was underway to expand the capacity to 14,000 barrels daily. The company thus re-entered the refining industry in Ontario after an 8 year absence.

By 1958, Texaco Canada had increased its refining capacity to 2½ times the level of 1946. However, its share of total capacity in Canada had fallen to 11 percent, compared to 15 percent twelve years earlier, partly as a result of the entry of new refiner-marketers on the Canadian scene.

The company's largest markets continued to be in Quebec and Ontario, which accounted for 85 percent of the total volume of sales. Although product sales in the Atlantic region and in the West increased substantially, their portion of the total did not change significantly.

Texaco Canada operated three refineries in 1958 — at Montreal, Port Credit and Edmonton. Product distribution was significantly different from that which prevailed twelve years earlier. The company still supplied its modest Atlantic region requirements from Montreal, but its refining capacity in Ontario was only about one-half of the amount needed to supply the Ontario sales volume. The Montreal refinery was used to supply the balance of the Ontario needs.

Montreal was an economical source of supply for a part of Texaco Canada's business in Ontario because of the construction of a products pipeline system to carry products from Montreal to terminals in Ontario as far west as Hamilton. Texaco Canada supplied one-third of the equity in the Trans-Northern Pipeline Company and guaranteed one-third of the indebtedness which the pipeline assumed for its construction in 1951-1952, some seven or eight years prior to the construction of the St. Lawrence Seaway. While this pipeline was not

fully utilized initially, it eventually became the principal carrier of products to markets in the Ottawa Valley area and other important communities between there and Toronto.

The company's Edmonton refinery, by processing nearly 10,000 barrels of crude oil daily in 1958, was able to supply virtually all of the company's requirements in the West by direct shipment or through balanced trading agreements with other refiners.

The company's lubricating oil and grease manufacturing facilities had undergone a profound change since 1946; all of the old and small blending plants were closed, and new facilities were constructed in 1948 at Toronto, on the refinery site, and in 1957 at the Edmonton refinery. Even today, Texaco Canada buys the base stocks for its lubricants.

In the early 1960's, the company expanded its operations in the Atlantic provinces, initially by extending its marketing network, and then by constructing a refinery to satisfy those marketing needs. In 1964, operations began at the company's new 13,500 barrels daily refinery in the Halifax area.

Beginning in 1963, the National Oil Policy significantly affected Canadian petroleum refining and products distribution. By barring the movement of products made from foreign crude oil to that part of Ontario lying west of the Ottawa Valley, the NOP cut off certain refineries from their traditional and natural marketing areas. New distribution patterns had to be created.

As a result of the NOP, the Trans-Northern Pipeline system between Maitland and Kingston was closed; the pipeline was divided into two systems. The Ottawa Valley was served from Montreal, while the other pipeline terminals further west were served from refineries in the Toronto area. Lacking sufficient capacity west of the NOP line and sufficient marketing requirements to the east, Texaco Canada entered into a reciprocal agreement with an Ontario refiner in the early 1960's to prevent its Montreal refinery from being under utilized and to supplement the supplies available from Port Credit for the company's sales in Ontario.

In the late 1960's, the company became concerned with its refining situation in Ontario. Its Ontario sales had grown rapidly during the decade of the 1960's, the National Oil Policy was still in place, and the refinery at Port Credit was judged unsuitable for expansion beyond 48,000 barrels daily (the level which it finally attained in 1974), well short of the capacity required to serve the company's existing and future needs.

This plant, although operating efficiently, was relatively small, and nearby residential and commercial properties inhibited further expansion. The company decided to build a new refinery.

Texaco Canada's modern Nanticoke plant became fully operative in 1978, after eight years of economic and planning studies, engineering design, and construction.

While Nanticoke was not originally intended to replace Port Credit, it did so. The petrochemical facilities at Port Credit are still operating, and the plant continues as a terminal supplying products to Toronto and other markets in Ontario.

In the post-war period, then, Texaco Canada significantly increased its overall refining capacity to meet the growing Canadian demand for petroleum products. The company constructed modern, efficient refineries, while expanding and modernizing its existing refineries. Capacity increased by 625 percent between 1946 and the peak year of 1978. Table I-9 shows the growth in Texaco Canada's refining capacity over this period.

In the most recent years, demand for petroleum products in Canada has decreased. Because of this and other economic considerations, Texaco Canada closed its Montreal refinery late in 1982 after 55 years of service.

Efficient production of petroleum products requires that facilities be operated close to their nominal rated capacity,[2] and it is therefore quite costly to keep under utilized refinery capacity in service. Similarly, during earlier periods when capacity was being expanded, the company sought to assure that its refineries would operate at high levels of capacity utilization by developing sufficient business, either through its own marketing network or through sales to other marketers, in advance of the operation of new refining facilities.

Charts I-G to I-K show the year-by-year growth of Texaco Canada's average refining capacity for Canada and by region, and actual crude oil runs from 1946 to 1982.

Maps V to VIII show Texaco Canada's refining centres, the relative size of the regional refining capacity, and the main source of crude oils used for the years 1946, 1958, 1973 and 1981.

CHART I-G

Texaco Canada
Refining Capacity and Annual Crude Runs
Canada

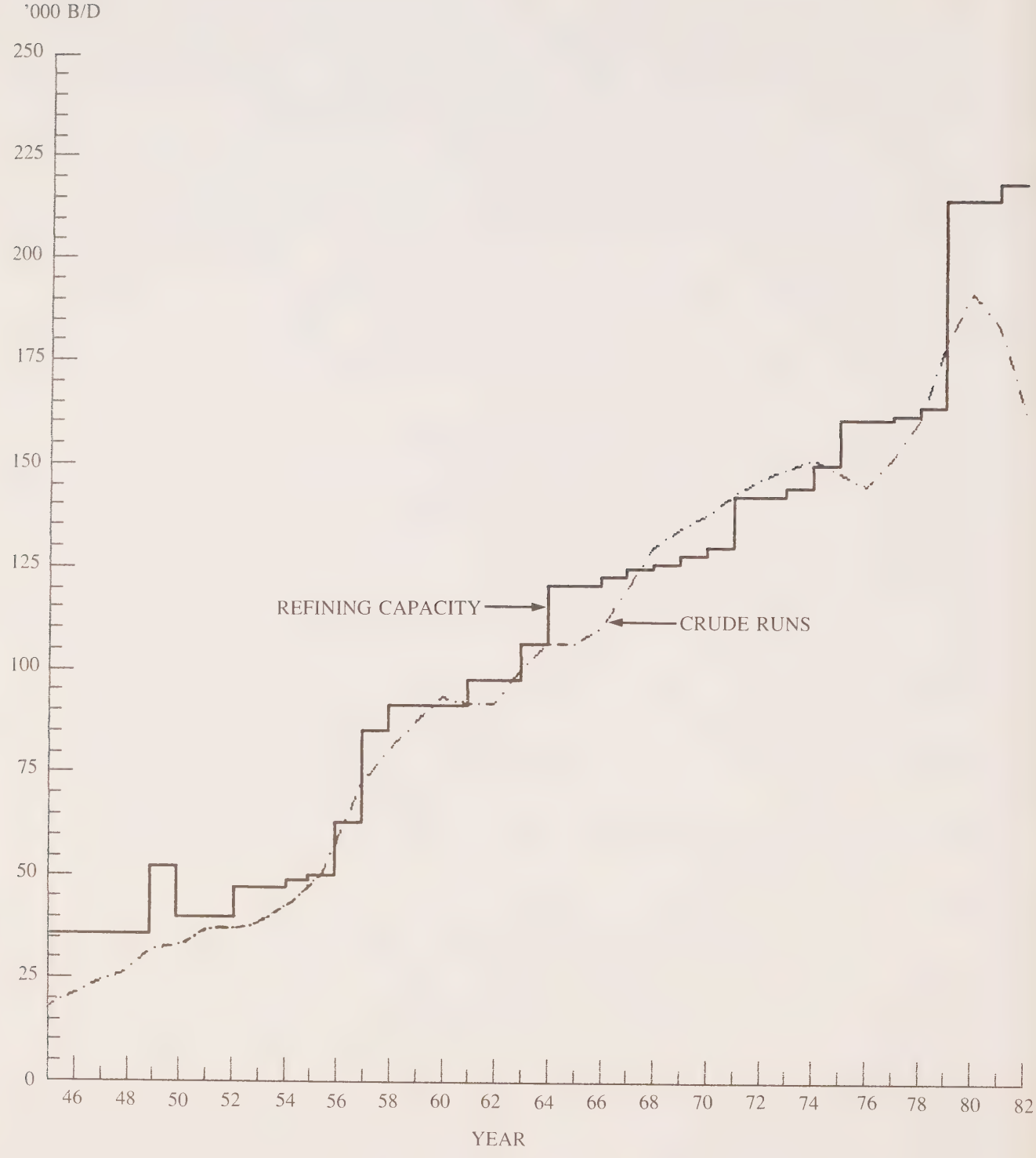


CHART I-H

Texaco Canada
Refining Capacity and Annual Crude Runs
Atlantic Region

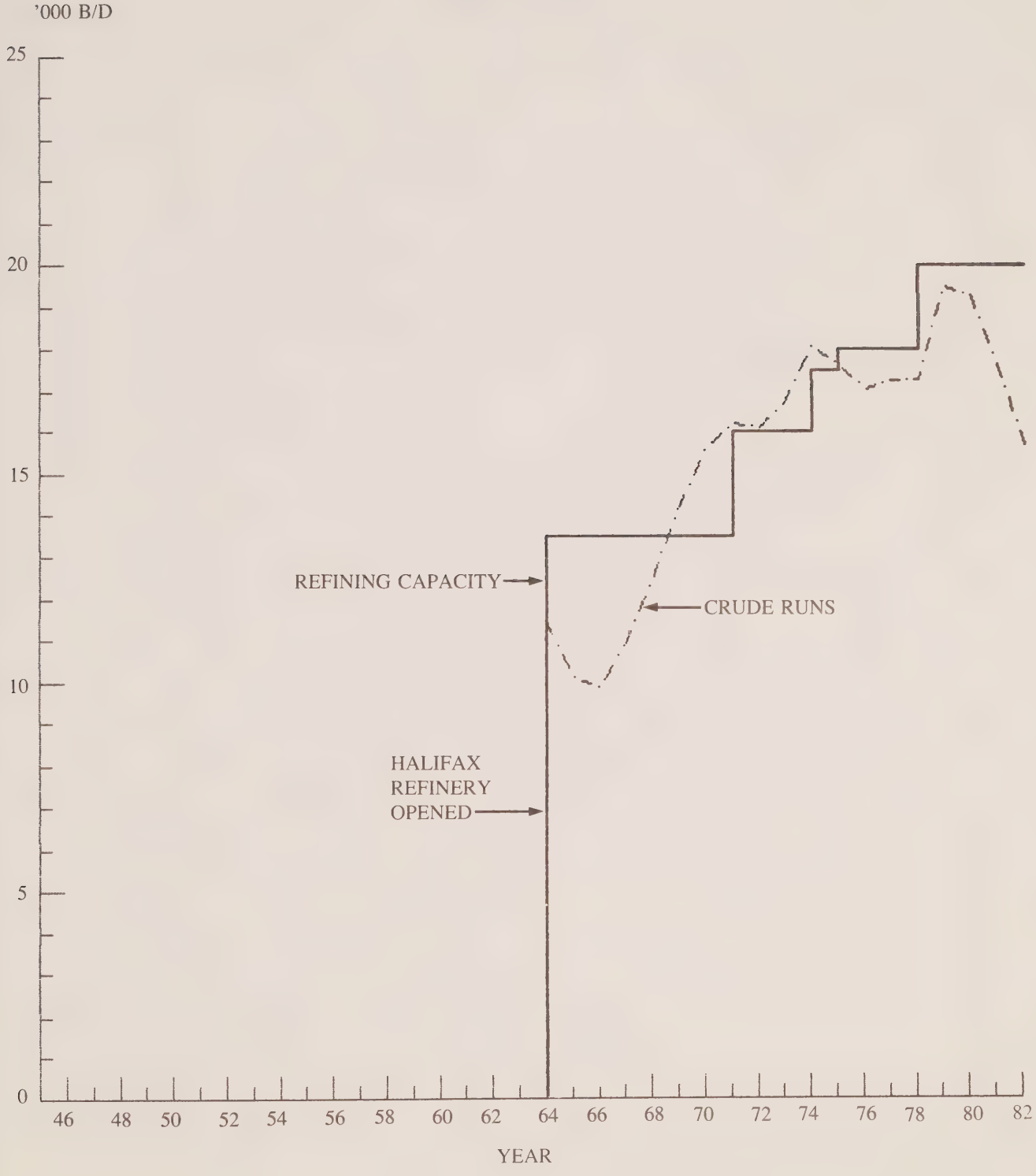


CHART I-I

Texaco Canada
Refining Capacity and Annual Crude Runs
Quebec Region

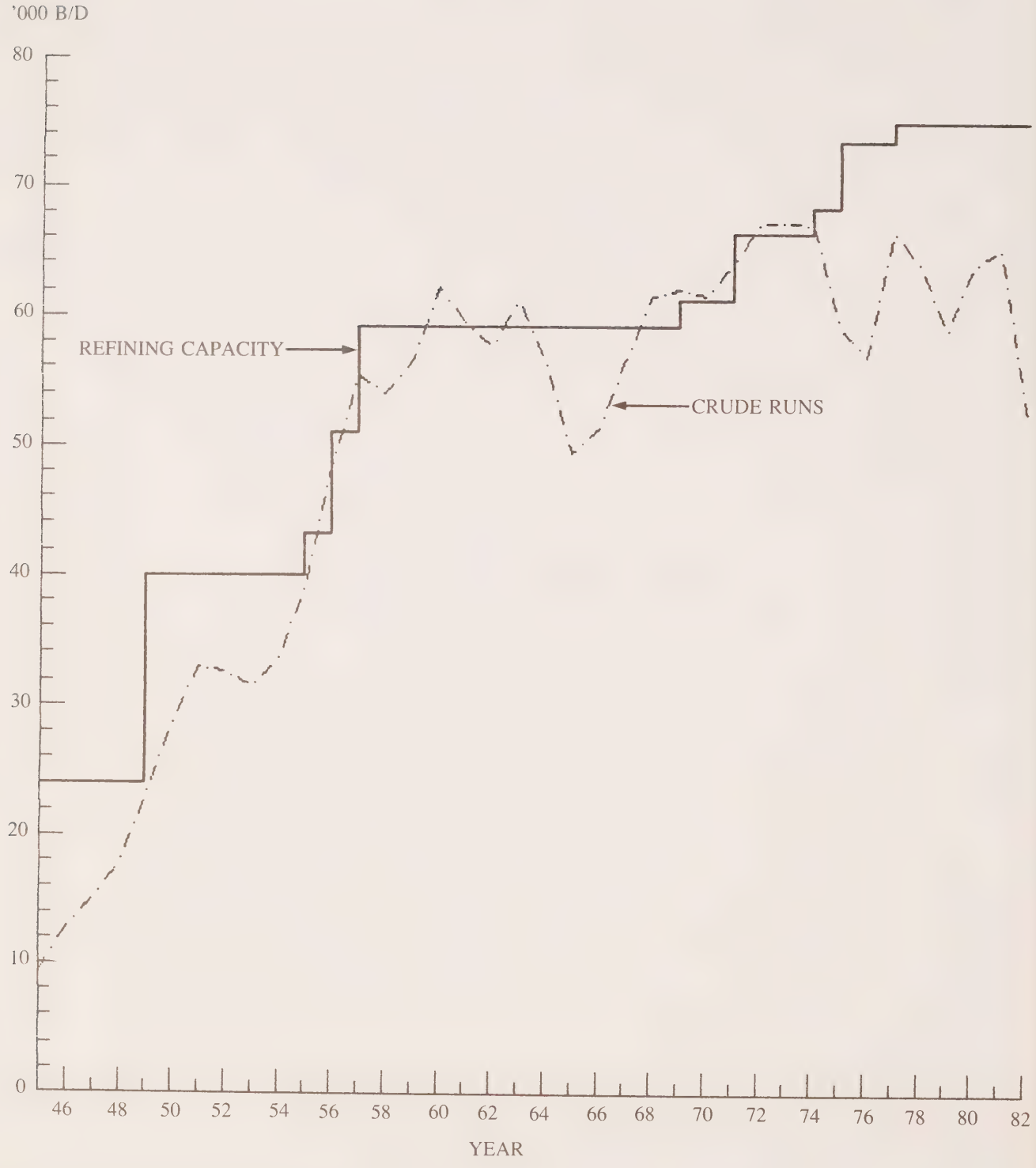


CHART I-J

Texaco Canada
Refining Capacity and Annual Crude Runs
Ontario Region

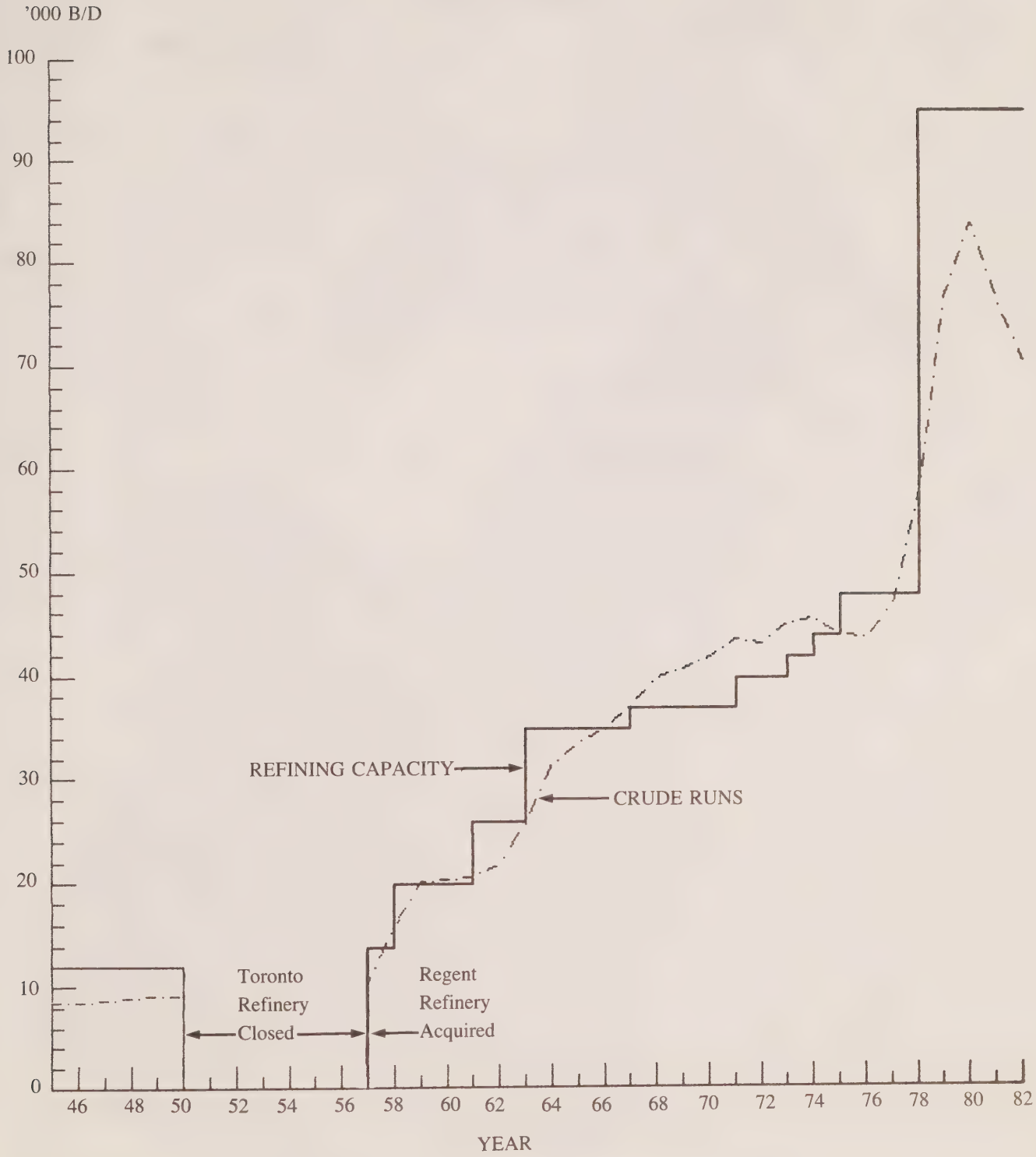
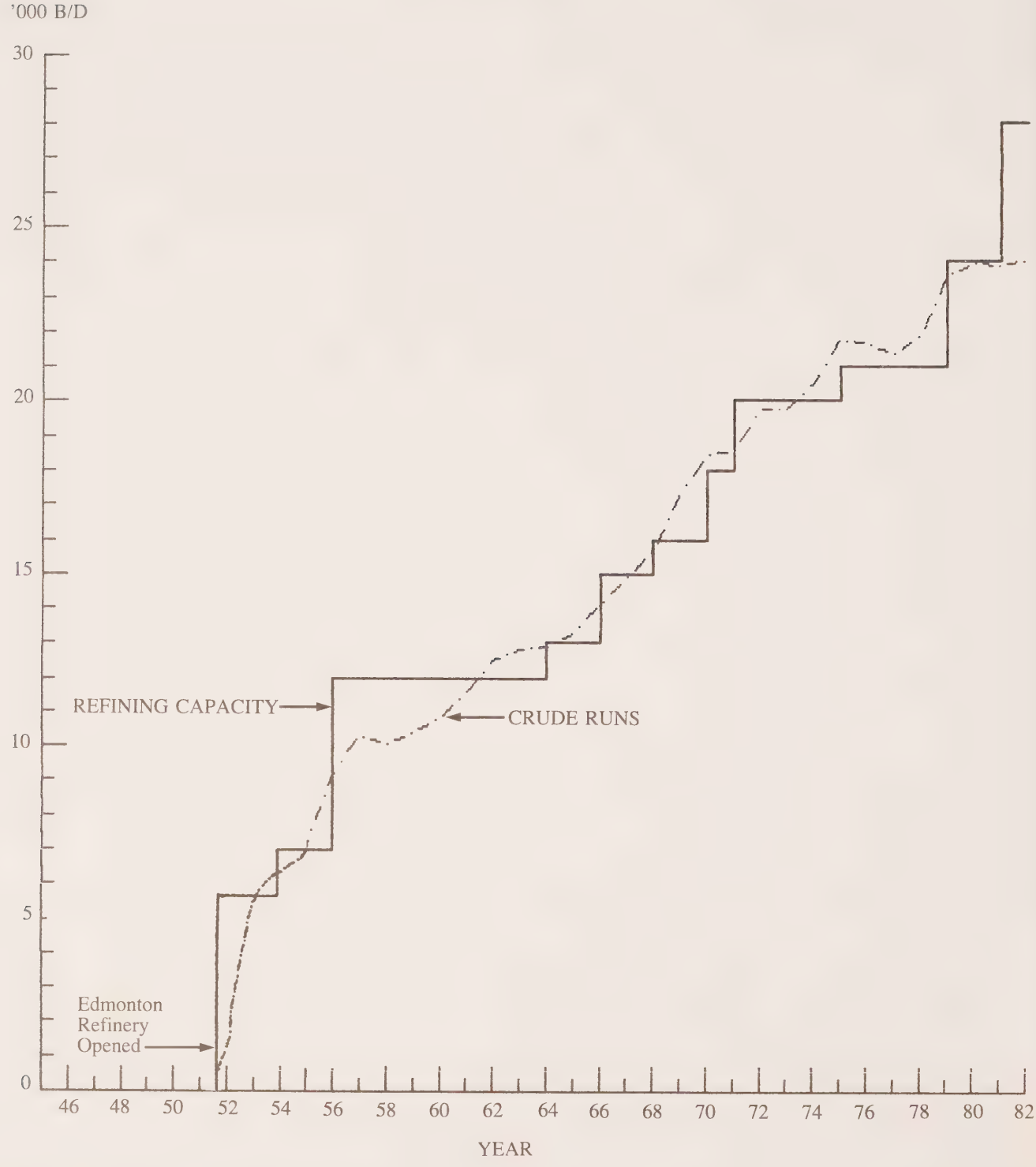
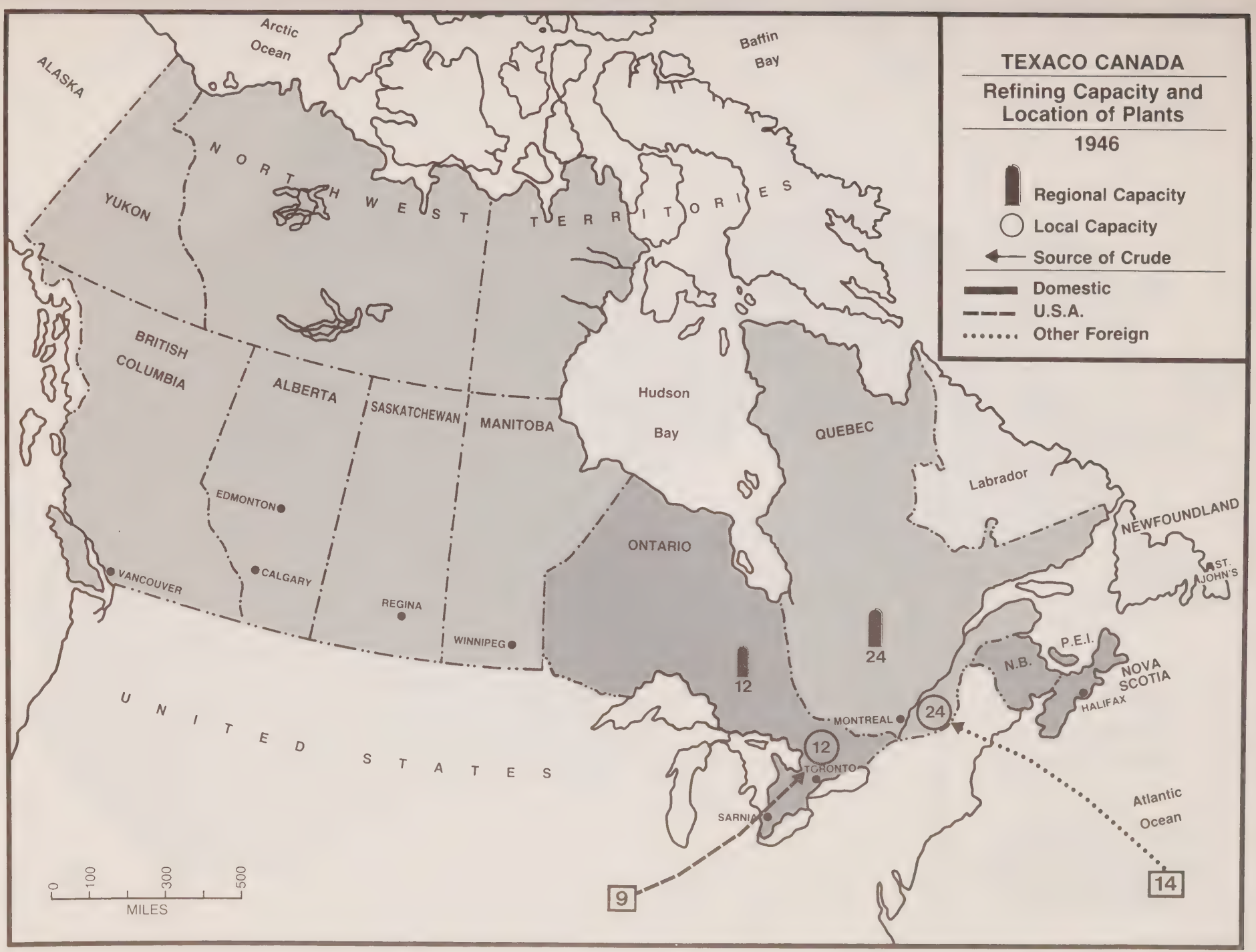


CHART I-K

Texaco Canada
Refining Capacity and Annual Crude Runs
Western Region




TEXACO CANADA
Refining Capacity and Location of Plants
1946
Regional Capacity
Local Capacity
Source of Crude
Domestic
U.S.A.
Other Foreign
Arctic Ocean
Baffin Bay
ALASKA
YUKON
NORTH WEST TERRITORIES
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
Hudson Bay
QUEBEC
Labrador
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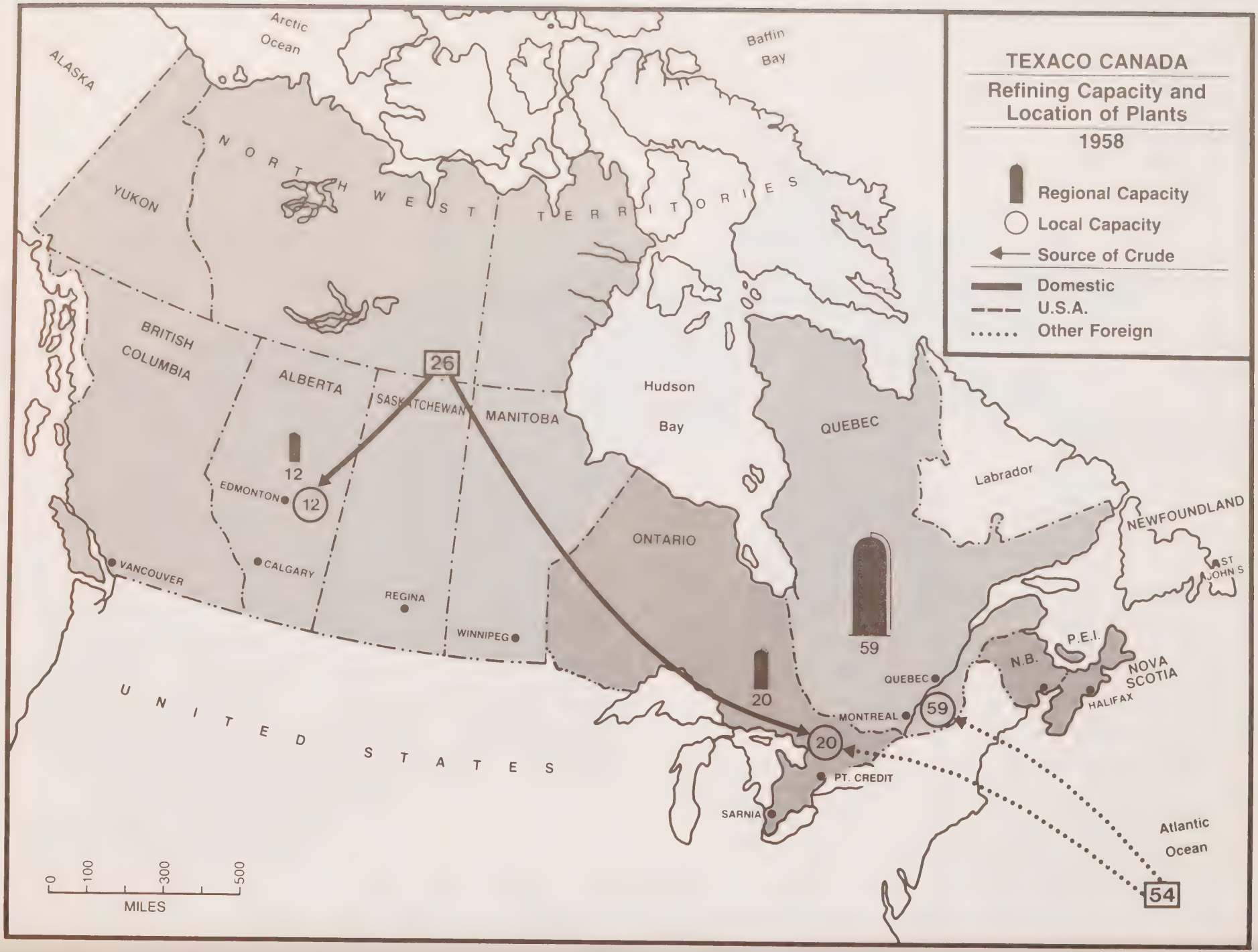
TEXACO CANADA
Refining Capacity and Location of Plants
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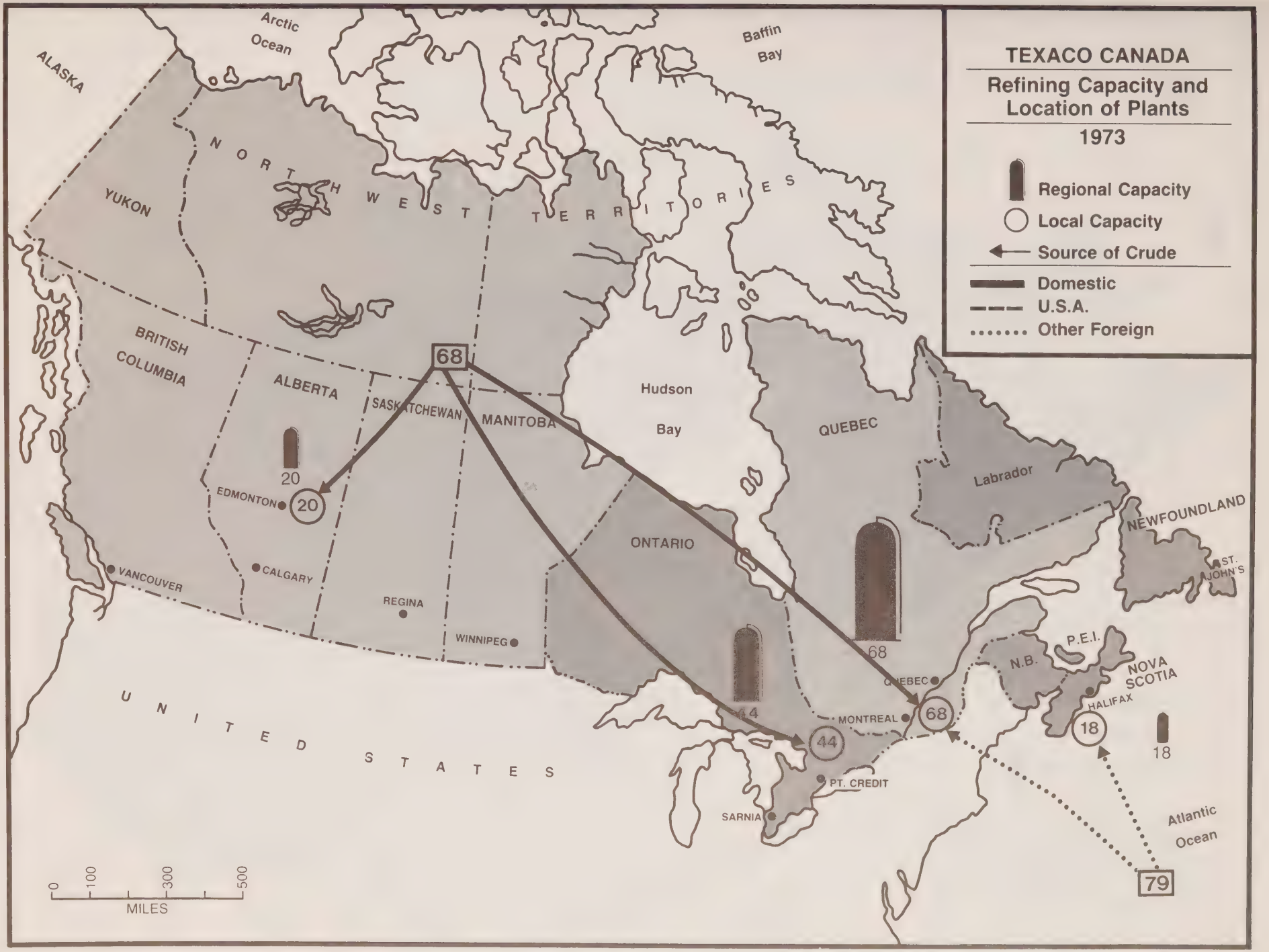
TEXACO CANADA
Refining Capacity and Location of Plants
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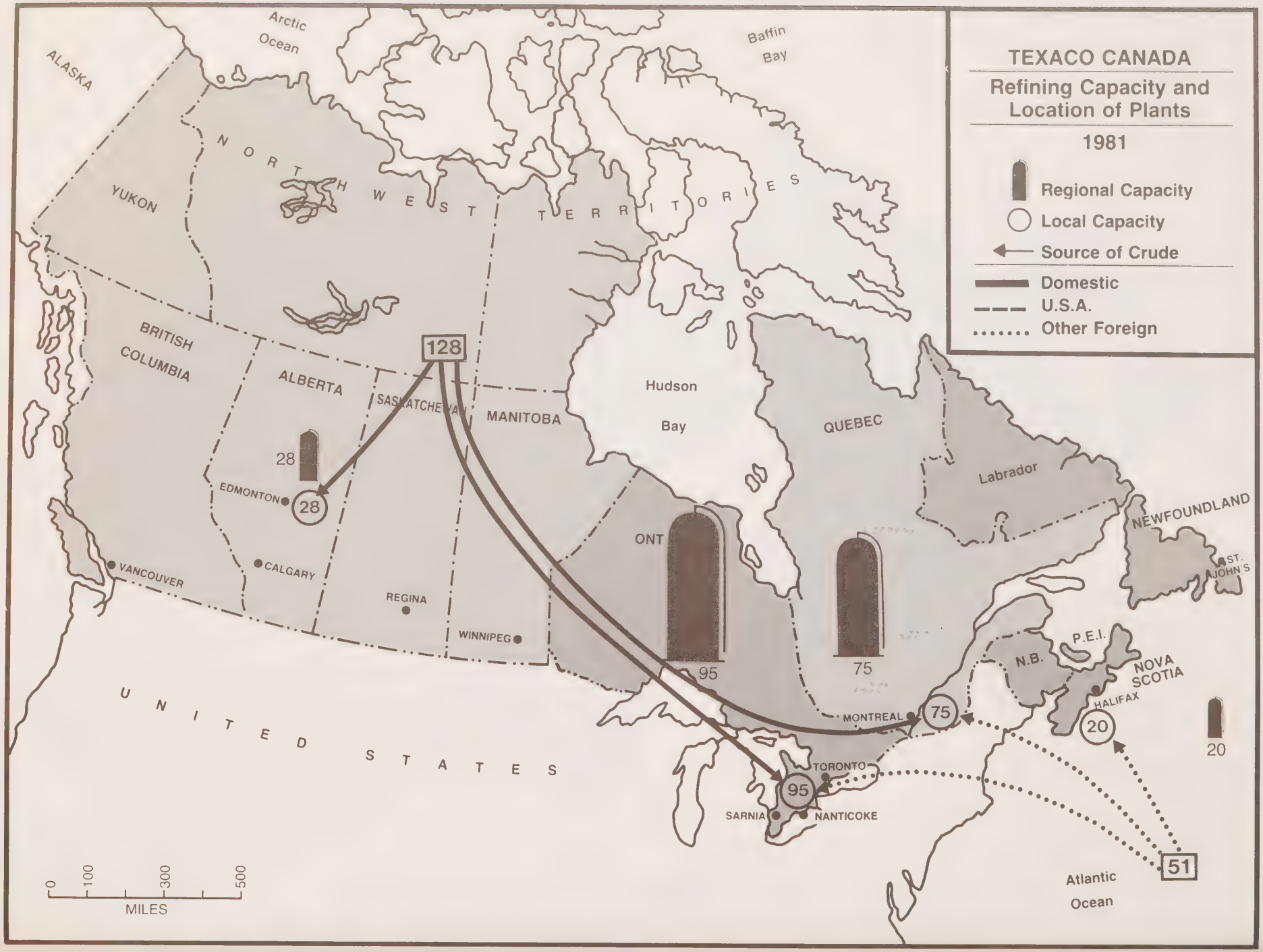
TEXACO CANADA
Refining Capacity and Location of Plants
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TABLE I-9

Texaco Canada
Nominal Crude Oil Refining Capacity
'000 Barrels Daily

	As at January 1st						
	Halifax	Montreal	Toronto	Port Credit	Nanticoke	Edmonton	Canada
1946	—	24	12	—	—	—	36
1950	—	40	—(a)	—	—	—	40
1955	—	43	—	—	—	7(b)	50
1960	—	59	—	20(c)	—	12	91
1965	14(d)	59	—	35	—	13	121
1970	14	61	—	37	—	18	130
1975	18	73	—	48	—	21	160
1980	20	75	—	—(e)	95(f)	28	218
1983	20	—(g)	—	—	95	28	143

Notes:

(a) Closed in 1949.

(b) New plant opened in 1951.

(c) Acquired from Regent Refining in 1957.

(d) New plant opened in 1964.

(e) Closed in 1978.

(f) New plant opened in 1978.

(g) Closed in 1982.

Table I-10, which shows refinery utilization rates, indicates that the company has generally been successful in achieving high levels of capacity utilization. The record, however, is not perfect. Unanticipated events have sometimes led to refinery operation at lower than desired levels. For example, the institution of the National Oil Policy in 1961. Subsequently-forced realignments in distribution patterns, as already noted, and capacity utilization at Montreal fell below desired levels.

TABLE I-10

Texaco Canada
Utilization rates of nominal rated capacity of the Company's refineries in selected years

	Crude runs as a percentage of average annual capacity						
	Halifax	Montreal	Toronto	Port Credit	Nanticoke	Edmonton	Canada
1946	—	59	72	—	—	—	63
1950	—	78	—	—	—	—	78
1955	—	99	—	—	—	85	97
1960	—	105	—	89	—	89	99
1965	70	84	—	98	—	106	89
1970	119	101	—	118	—	101	108
1975	93	69	—	92	—	109	89
1980	85	91	—	—	84	98	88
1982	66	56	—	—	72	85	68

With the closing of its Montreal refinery and the supply arrangements which have been established, it is expected that the utilization of the company's remaining capacity will return to the levels which are needed to achieve the economies of scale and to remain competitive in the marketplace.

Throughout much of the post-war expansion in demand for petroleum products, Texaco Canada's additions to refinery capacity lagged slightly behind the growth of its marketing requirements. In its transactions with other petroleum companies, therefore, Texaco Canada during these years often secured supplies through processing or purchase agreements. The overall balance between the company's production and its marketing needs in 1958, 1973, and 1981 is shown in Tables I-11, I-12 and I-13. These tables show only the net flow of petroleum and therefore do not capture the full extent of exchanges and other transactions with petroleum companies. In particular, they do not indicate the company's use of exchanges and other transactions to reduce the costs of distributing petroleum products. Charts I-L to I-P, which follow Table I-13, illustrate Texaco Canada's petroleum requirements and principal method of supply from 1946 through 1982.

The tables and charts indicate the company's need to obtain supplies from others in the years prior to operation of the Nanticoke refinery. In these years, agreements were reached with other refiners to use their surplus crude oil capacity to process crude oil for Texaco Canada for a negotiated fee, or to sell products to the company in certain areas where a processing agreement was not feasible. Supplies secured through such arrangements reached a peak of nearly 20 percent of the company's total sales during the years when the Nanticoke refinery was under construction.

In the 8 years between 1973 and 1981, Texaco Canada adjusted its distribution system in response to the opening of Nanticoke and the closing of Port Credit refineries, the reactivation of the previously closed section of the Trans-Northern pipeline, the beginning of the slow down in demand for petroleum products, the extension of the domestic crude oil pipeline system to Montreal and the reduction of supplies from the foreign crude oil sources upon which the company had depended for several decades in its Atlantic and Quebec operations.

As a result of these adjustments, Texaco Canada was, by 1981, no longer a net purchaser of petroleum products. In order to minimize distribution costs, the company continued to acquire some petroleum products from other companies. Texaco Canada attempts to maintain a balance between its refining output and its marketing needs. It uses exchanges, processing and purchase or sale agreements to maximize efficiency and reduce costs.

TABLE I-11

Texaco Canada
Petroleum Requirements and Method of Supply
1958

	'000 Barrels Daily				
	Atlantic	Quebec	Ontario	West	Canada
Crude runs	—	50	19	10	79
Fuel and loss	—	(4)	(1)	—	(5)
Products made	—	46	18	10	74
Imports/(exports)	—	1	—	—	1
Trades/purchases	—	(3)	(1)	—	(4)
Transfers	2	(19)	17	—	—
Inventory change	—	1	2	—	3
Requirements	2	26	36	10	74

TABLE I-12

Texaco Canada
Petroleum Requirements and Method of Supply
1973

	'000 Barrels Daily				
	Atlantic	Quebec	Ontario	West	Canada
Crude runs	18	65	48	19	150
Fuel and loss	(1)	(4)	(3)	(1)	(9)
Products made	17	61	45	18	141
Imports/(exports)	—	—	(1)	—	(1)
Trades/purchases	2	(4)	16	9	23
Transfers	(1)	(7)	10	(2)	—
Inventory change	(1)	1	—	1	1
Requirements	17	51	70	26	164

TABLE I-13

Texaco Canada
Petroleum Requirements and Method of Supply
1981

	'000 Barrels Daily				
	Atlantic	Quebec	Ontario	West	Canada
Crude runs	18	62	74	25	179
Fuel and loss	(1)	(6)	(4)	(2)	(13)
Products made	17	56	70	23	166
Imports/(exports)	—	—	(1)	—	(1)
Trades/purchases	1	(8)	(1)	6	(2)
Transfers	1	(1)	1	(1)	—
Inventory change	(1)	1	2	(1)	1
Requirements	18	48	71	27	164

CHART I-L

Texaco Canada
Total Petroleum Requirements and Method of Supply
Canada

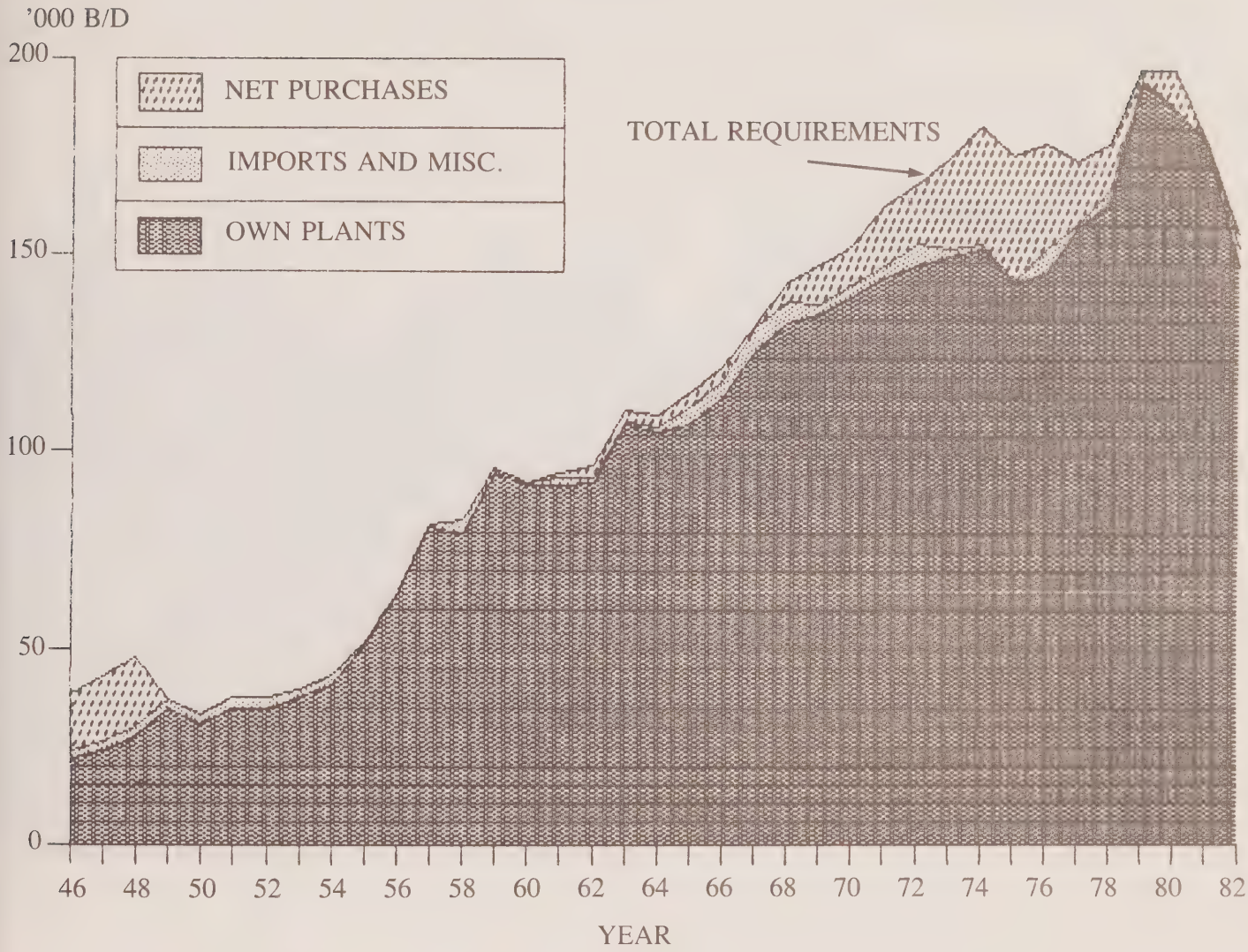


CHART I-M

Texaco Canada
Total Petroleum Requirements and Method of Supply
Atlantic

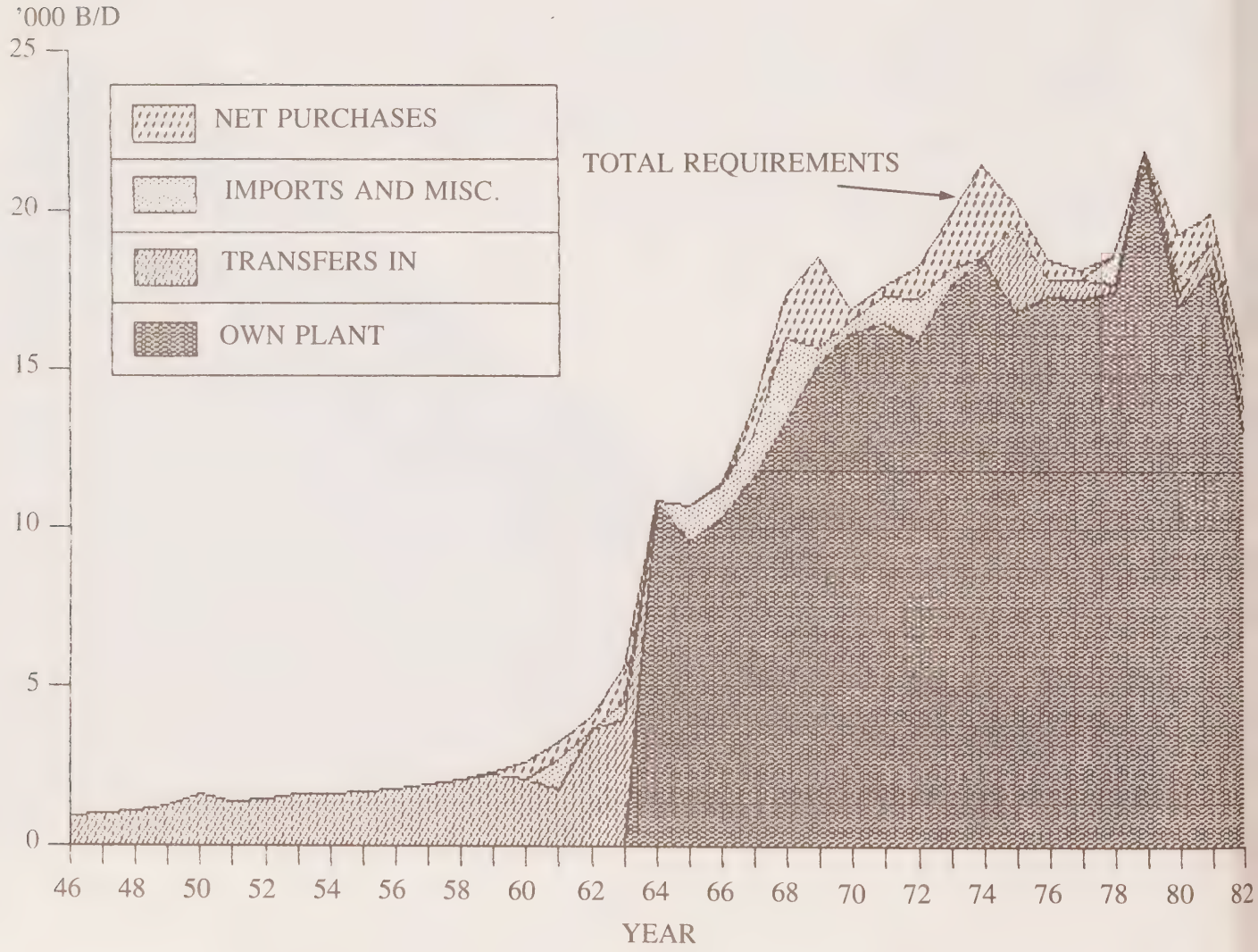


CHART I-N

Texaco Canada
Total Petroleum Requirements and Method of Supply
Quebec

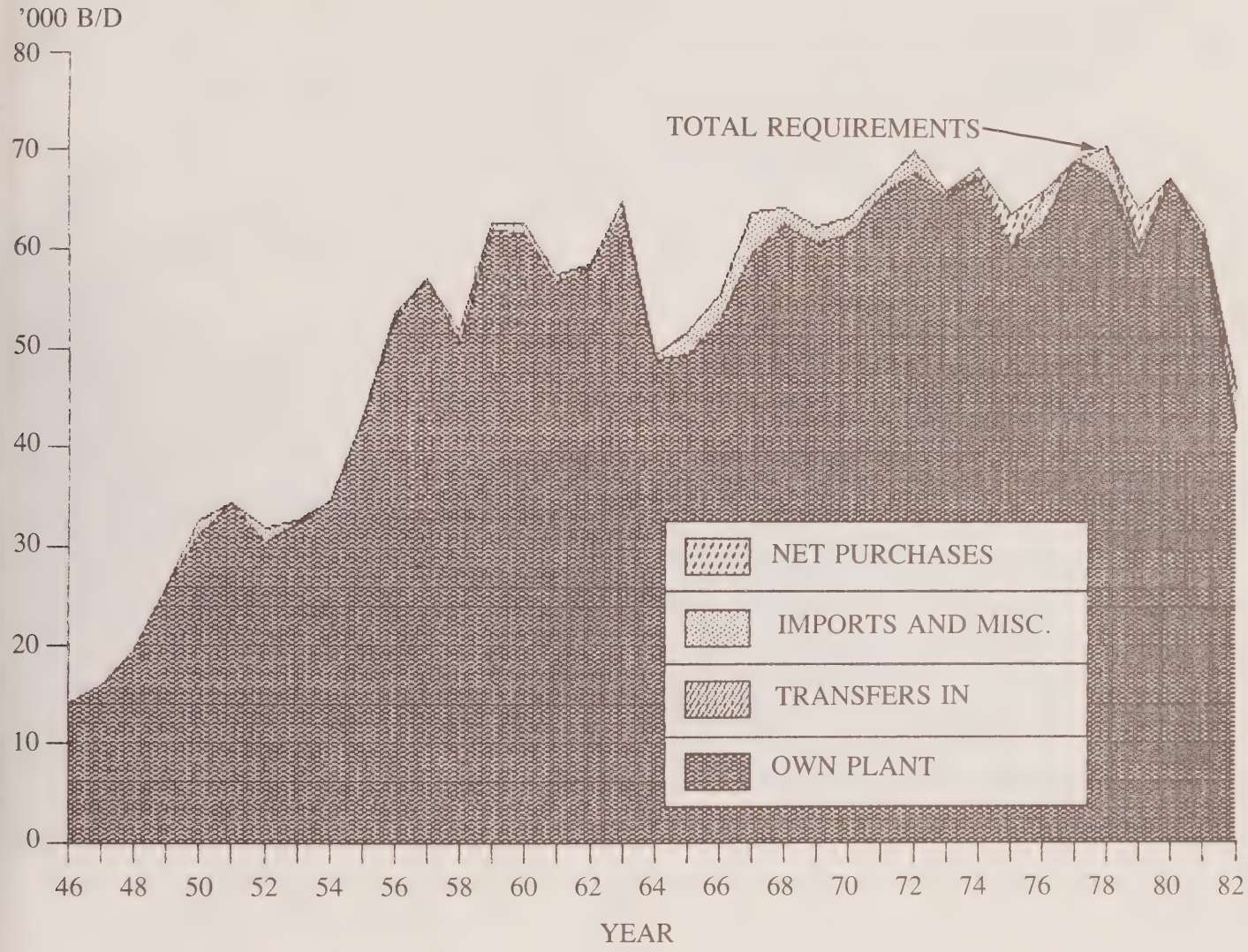


CHART I-O

Texaco Canada
Total Petroleum Requirements and Method of Supply
Ontario

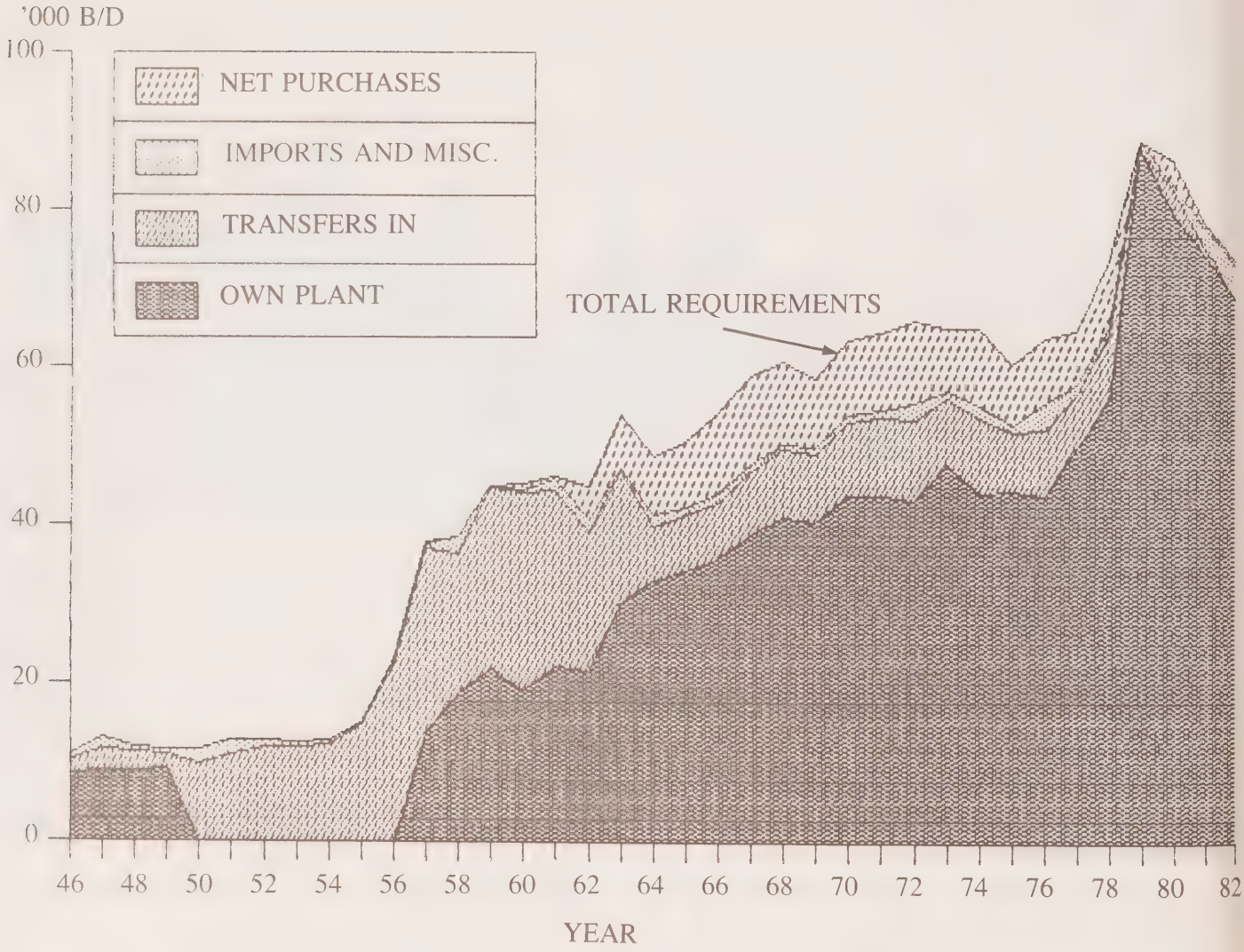
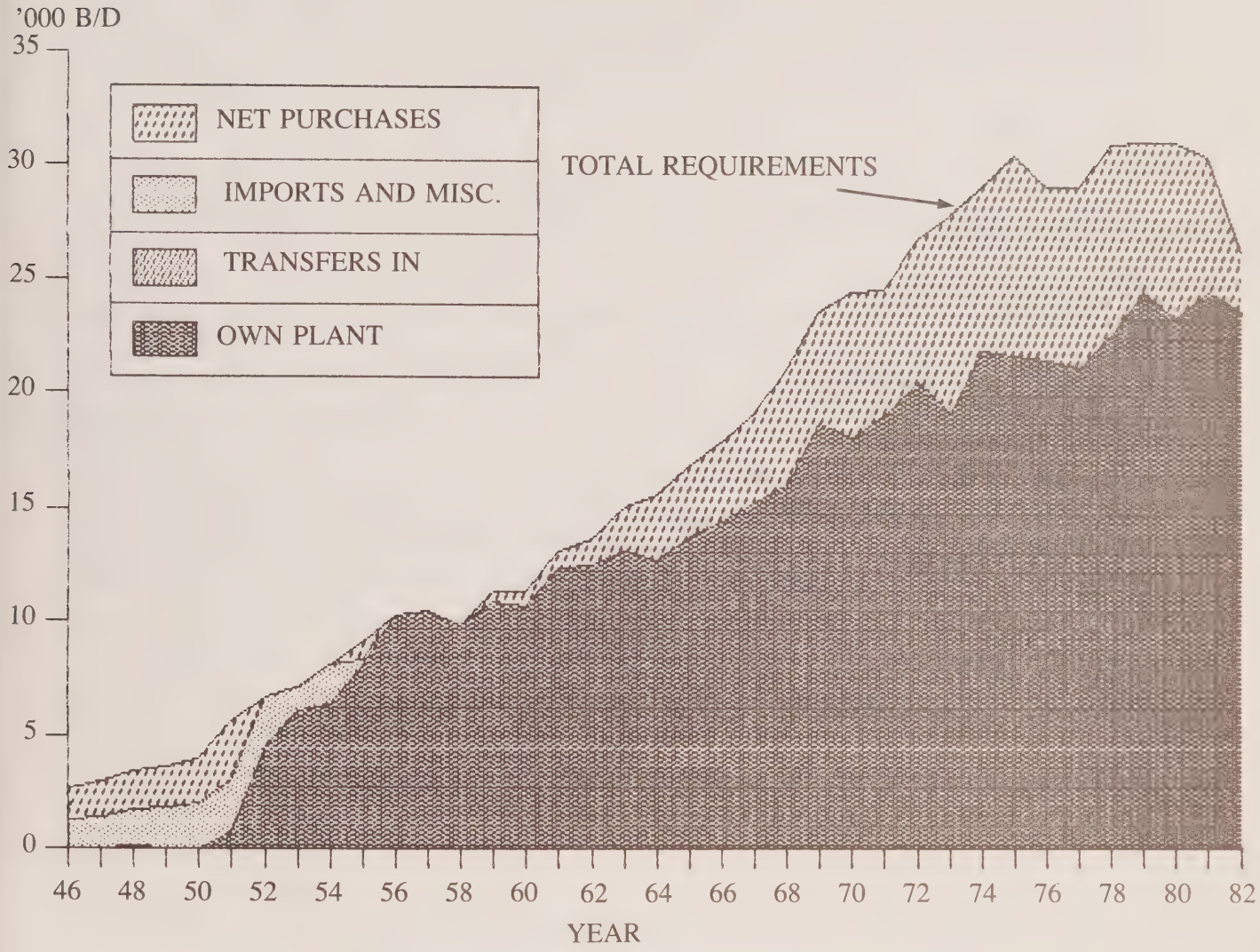


CHART I-P

Texaco Canada
Total Petroleum Requirements and Method of Supply
Western



The history of Texaco Canada's refining operations in the post-war period, while not identical to the history of the refining operations of other petroleum companies, illustrates the post-war transformation of the industry. The company's total refining capacity increased to meet the growing demand for petroleum products (and later contracted as demand contracted). Refineries grew and were modernized, and modern, efficient refineries were constructed. The company took advantage of developments in transportation for which it was in part responsible, developments which allowed reliance on refineries large enough to benefit from economies of scale. The transformation of Texaco Canada's refining operations, achieved through substantial investments by the company, with the technical and financial support of its majority shareholder, permitted it to operate efficiently, while meeting the demands of consumers in the post-war period for greater quantities of high quality petroleum products.

G. Conclusion

Canada entered the post-war era with a refining capacity that was small by today's standards, and refineries that were technologically inappropriate to the demands that the future would bring. There were few refinery operators; four refiner-marketers held 90 percent of the refining capacity.

In the following thirty-five years, that industry was thoroughly transformed by the large investments made by the four major refiner-marketers, other existing refiners and important new entrants into the industry. The investments were made to anticipate or to meet the demands of the Canadian consumer. The industry grew many times over in capacity and efficiency. Today's refinery is much more complex, a complexity required to efficiently produce the kinds of petroleum products needed. It is also many times larger than the average refinery of 1946, an increase in size made possible in part by the industry's investment in transportation facilities to support large-scale refineries. That increased size is essential to the economically efficient operation of the complex modern technology that produces today's product slate.

Finally, the opportunities created by increased demand resulted in a wider distribution of refining capacity among industry participants.

II Aspects of the Economics of Refining

A. Economies of Scale

Large refineries process crude oil at a lower cost per barrel than small refineries, other things being equal. That simple fact, usually expressed by saying that petroleum refineries exhibit economies of scale, goes far towards explaining why any single petroleum refining region in Canada has a few relatively large refineries rather than a large number of small refineries.[3] The significance of these economies of scale depends on the amount and complexity of the processing equipment. The more equipment there is, and the more complex and expensive it is, the more significant the economies of scale. Modern refineries use more complex and expensive processing equipment than did the refineries of an earlier era. That fact helps explain why the average size of a Canadian refinery has increased in the post-war period.

These economies of scale exist primarily for two reasons. The first is that while capital investment increases as the scale of a refinery increases, the required capital investment increases at a slower rate than does the scale of the plant. In other words, if the scale of a proposed refinery increases by a factor of two, the capital investment required to construct that refinery increases by a factor of less than two. Assuming that the large and small refinery would be financed at equal cost per dollar of investment, it follows that the financing cost also increases less rapidly than does the scale of the plant. While the larger plant costs more than the smaller plant to construct, the cost per barrel of capacity is lower for the larger plant than for the smaller plant.[4]

The second primary reason for economies of scale is that the labour force required to operate and maintain a refinery increases less rapidly than does the scale of the refinery. Labour costs per barrel, as with other fixed costs, are therefore lower for the larger plant.

Together, these two factors can produce significant differences in average processing costs per barrel between plants of different scale. A hypothetical example makes this clear.

For purposes of this example a typical refinery having a crude oil capacity of about 100,000 barrels daily, with cracking and other upgrading processing facilities, has been selected as the basic size to which plants of a different size will be compared.

Operating expenses of this hypothetical refinery were based on the following assumptions:

(a) Capital cost — $500 million

(b) Labour force — 400

(c) Fuel and loss — 6 percent of crude oil run

(d) Additives and chemicals — 1 percent of crude costs

(e) Crude oil cost — $30 per barrel

These assumptions were chosen for illustrative purposes only, and do not necessarily reflect current operating factors.

In Table I-14 which follows, four refineries, one larger and three smaller, are compared to the base size of the 100,000 barrels daily plant to illustrate the economies of scale in refinery operations.

The Table divides expenses, or costs, of operation into three categories: fixed expenses, variable expenses, and fuel expense, which is a particularly significant part of the variable costs.

Fixed expenses incurred in operating a petroleum refinery are those that are relatively unresponsive to the throughput of crude oil; variable expenses are those that tend to rise and fall with the level of plant activity.

The fixed expenses can be subdivided into those expenses which are related to the capital invested in the plant and those which are related mainly to the cost of the labour, materials and supplies needed to sustain round-the-clock operations.

The variable expenses, which tend to track the level of crude oil runs and the associated rate of throughput in the other refining facilities, can be subdivided into two broad categories: (1) the fuel burned in the process and (2) the chemicals, power and water added to or consumed in the various stages of operations.

TABLE I-14

Petroleum Refineries
Economies of Scale

		A	B	C	D	E
Size factor		1½	1	¾	½	¼
Nominal capacity	'000 B/D	150	100	75	50	25
Crude oil runs	'000 B/D	135	90	67.5	45	22.5
	million bbls.	49.3	32.9	24.6	16.4	8.2
Work force	Employees	470	400	365	315	265
Construction cost	(millions)	$640	$500	425	325	225
Operation Expense	(millions)					
(a) Fixed		$ 51	41	36	29	22
(b) Variable		15	10	7	5	3
(c) Fuel		88	59	44	30	15
Total		154	110	87	64	40
Expense	/bbl.					
Incl. fuel		$ 3.13	3.35	3.54	3.90	4.88
Excl. fuel		1.33	1.55	1.74	2.10	3.08
Cost of Products	/bbl.					
Crude oil		$ 30.00	30.00	30.00	30.00	30.00
Expense (ex. fuel)		1.33	1.55	1.74	2.10	3.08
Input cost		31.33	31.55	31.74	32.10	33.08
Output cost @ 94% yield		33.33	33.56	33.77	34.15	35.19
Output Cost	/bbl.					
Over (under) base		$ (.23)	—	.21	.59	1.63

Source: Texaco Canada estimates.

The Table displays the economies available over the practical range of refinery size in the Canadian market. It shows that the operating expenses per barrel for a small refinery are

substantially higher than for a larger refinery. A comparison of refinery E with refinery A, six times larger, shows that the operating costs per barrel are more than twice as high in the smaller refinery E, excluding fuel expenses. When the cost of the crude oil is taken into account, the differences in total cost of producing refinery products are much smaller in overall proportional terms, because the cost of a barrel of crude oil today is much higher than the cost of processing that barrel, but they are just as large in dollar terms. And the dollar differences are sufficiently large to make the difference between success and failure for the refiner.

Economies of scale are obviously an important element when considering the construction and operation of a petroleum refinery. But a refiner must also consider the economies which result from operating at capacity rather than some lower level.

Per barrel costs of processing crude oil vary with the level of capacity of utilization in any given refinery. In effect, the greater the capacity utilization up to the capability of the refinery, the larger the number of barrels of crude over which the fixed costs are spread. Thus, increasing capacity utilization reduces the average cost of processing. Even though the costs per barrel are lower in a large refinery than in a small when both are running at the same level of capacity utilization, per barrel costs in the large may exceed those in the small if the latter is running near capacity while the large refinery is running well below capacity.[5]

Chart I-Q, following, illustrates this relative change in refining expense per barrel of crude run at various levels of utilization of the capacity of the typical refineries described in Table I-14, "Petroleum Refineries, Economies of Scale."

In planning a new plant, a refiner will weigh the cost advantages of large scale against the possibility of being obliged to operate the refinery at a low level of capacity utilization. The refiner will attempt to anticipate demand for petroleum products and plan accordingly. Once the plant is in operation, the refiner will attempt to operate at the maximum efficient level of capacity utilization. For this, the refiner looks to the support and security of its marketing operation.

B. The Joint Cost Problem

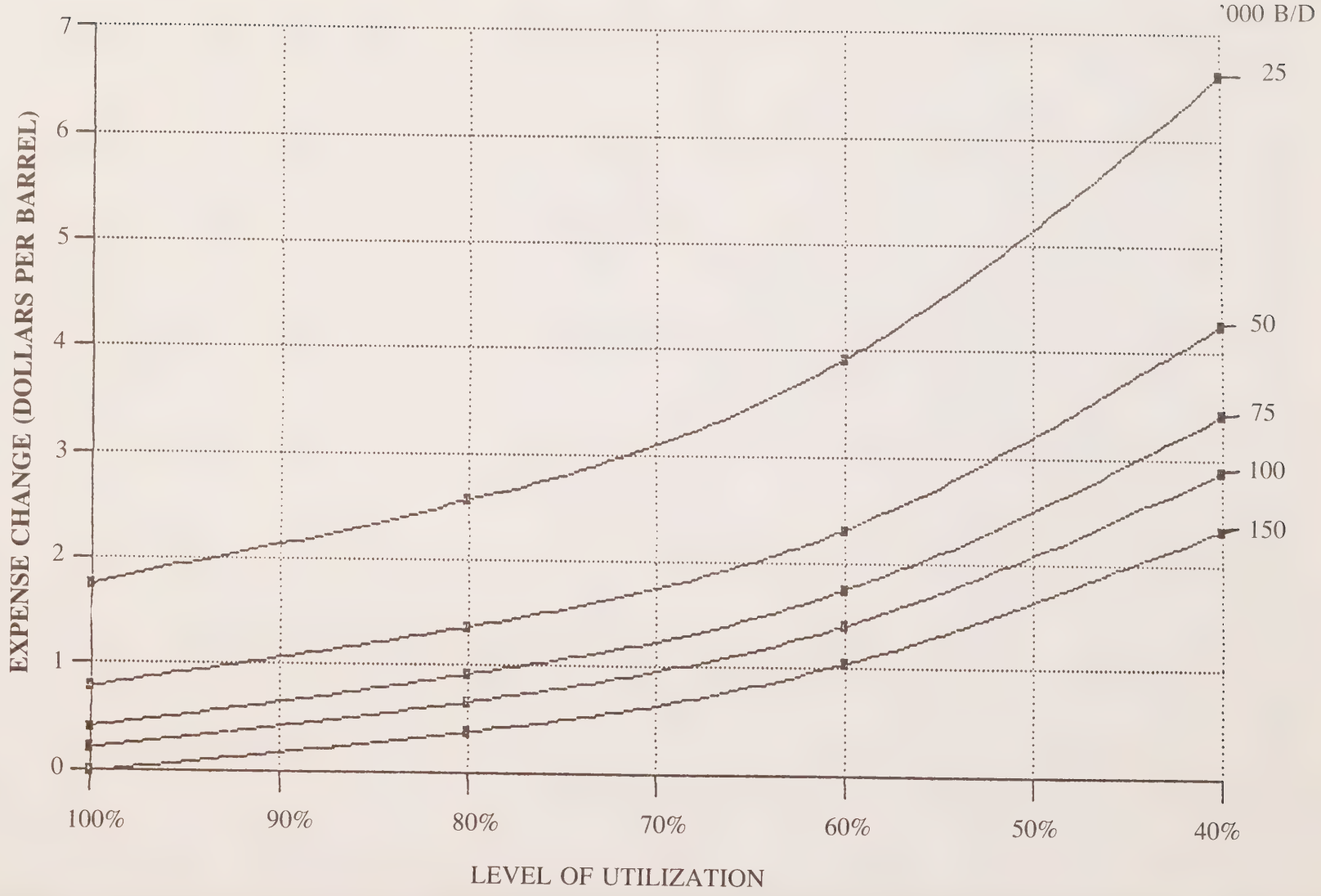
The preceding analysis of economies of scale analyzed the cost of processing a barrel of crude oil. When the cost of the crude oil itself is added to the processing cost, the result is the cost to the company of producing the products resulting from processing a barrel of crude. The cost concept is straightforward, and the actual data are readily available from any refiner's accounting system.

A barrel of crude oil, however, results not in a single product, but rather in a multitude of products, all produced simultaneously in a continuous process. While this is convenient, because consumers demand many different petroleum products, it is also unavoidable. Although the precise slate of products from a barrel of crude oil can be varied within certain limits, it is impossible to turn a barrel of oil into a quantity of a single product. Petroleum products are what economists refer to as joint products, products that are necessarily produced together.

Because petroleum products are joint products, their production involves joint costs, or costs that cannot easily be allocated to the production of one product rather than another. Nearly all the costs of producing petroleum products are joint costs. As a result, there is no

CHART I-Q

Petroleum Refineries
Economies of Scale and Utilization



simple answer, indeed no correct answer, to the question of how much does it cost to produce a single petroleum product.

This problem is not unique to the petroleum industry. Indeed, the classic illustration concerns the production of wool and mutton by feeding sheep.[6] How much of the cost of the feed should be allocated to the mutton? How much to the wool? The total cost of feeding the sheep is obvious, but the allocation of portions of that cost to wool and to mutton is obviously arbitrary. Similarly, a meat packing plant, for example, cannot measure the cost of the individual cuts of meat or the by-products derived in its slaughterhouse operations, and the same conditions apply to other industries with a host of products made from a common source — corn oil processing or the conversion of coal to coke, to name a few.

Refiners nevertheless find cost figures for particular petroleum products to be useful for a variety of intra-company purposes, including inventory valuation, establishing commercial objectives and the measurement of operating efficiency. They therefore have devised various methods of product costing. If these methods of costing are applied consistently over a long period of time, they form a basis upon which the various in house comparisons may be made. But because any system of allocating joint costs is arbitrary, the figures do not represent "true" costs. Moreover, they sometimes behave oddly. In particular, fluctuations in the value of heavy fuel oil may cause strange variations in product cost.

All of the costing methods require arbitrary allocation of overhead, investment related charges, operating costs and expenses and an apportionment of these items to operating units, whose construction cost may not be known precisely, and to hydrocarbon streams being separated, co-mingled, cracked, reformed and otherwise restructured, all at the same time, in the multitude of vessels, reactors, fractionating columns and lines of which a petroleum refinery is composed.

An examination of the flow diagrams in Exhibits I-I and I-II illustrates the complications which arise when an attempt is made to measure the cost of each unfinished or finished product which enters and then emerges from each stage of the refining processes. The only certainty is the cost of the raw material — crude oil or its equivalent — which enters the first stage of separation and the total cost of all the products which are available for sale or use after the refining process is completed. It is this cost, and not the arbitrary product costs, which, taken together with total revenues, determines profitability.

Each refining company uses the method or methods of arbitrary allocation of the costs of making petroleum products that best suits its own internal purposes. Among the methods used are the following:

(a) Sales realization

(b) By-product value

(c) Replacement value

(d) Import related value

(e) °API gravity method

Each of these methods will be discussed and illustrated below. The illustrative cost calculations show the extent to which different costing methods produce different costs.

The examples use a simplified approach to illustrate the results of costing by these various methods. Two grades of gasoline and two types of distillate represent the clean

product fraction of the crude oil. The remainder is assumed to be merchantable heavy fuel oil, fuel consumed and losses sustained in the conversion process.

Other assumptions:

(1) A typical cracking type refinery with crude oil capacity of 100,000 barrels daily, vacuum distillation, catalytic cracking, reforming and treating units and other facilities such as shown in the block flow diagram.

(2) An intake rate of 90 percent of crude oil capacity with other facilities running at their corresponding level while cracking at a moderate or mid-range rate.

(3) At an assumed crude oil cost of $30.00 per barrel, the revenue per barrel of product derived from the sale of selected products expressed as a percentage of the cost of crude oil was assumed to be:

	percent
Gasoline regular, unleaded	160
Gasoline regular, leaded	150
Light distillate	140
Heavy distillate	130
Heavy fuel oil	80

(4) Some common petroleum products such as lubricants, LPG's or other specialties are not included in the illustration because of their relatively small volume or the exclusion of the necessary processing facilities from the assumed refinery.

(5) The refinery would be regarded as a cost centre operated on a no profit, no loss basis.

(i) "Cost" Method A: Sales Realization

The sales realization method appears to have the most widespread use among refining companies. In it, the total cost of refining is allocated to all products except heavy fuel oil in accordance with the estimated net-back at the refinery gate. The net-back reflects the revenue received from sales to customers minus federal sales taxes and levies, provincial road taxes, transportation and other distribution costs and expenses.

In this method, heavy fuel oil is treated as a by-product, since the revenue recovered from its sale is less than the cost of the crude oil from which it is made. The cost of each of the gasoline and distillate products is increased accordingly in order that the total cost of operations could be recovered.

TABLE I-15

"Cost" Method A: Sales Realization

	Revenue Base			"Cost" Base		
	Number of Units	Unit Revenue	Amount	Number of Units	Unit Cost	Amount
Cost of operations						
Crude oil					$30.00	$30,000
Conversion expense					1.50	1,500
Total				1,000	31.50	31,500
Revenue and cost estimates						
Gasoline — unleaded	250	$48.00	$12,000	250	38.16	9,539
— leaded	250	45.00	11,250	250	35.77	8,943
Distillate — light	150	42.00	6,300	150	33.39	5,008
— heavy	150	39.00	5,850	150	31.00	4,650
	800	44.25	35,400	800	35.18	28,140
Heavy fuel oil	140	24.00	3,360	140	24.00	3,360
	940	41.23	38,760	940	33.51	31,500
Conversion fuel				60	N/V	—
Total				1,000	31.50	31,500

Because the sales realization method of costing is used by many companies in the industry, it may be useful to explore its properties further.

If the selling price of heavy fuel oil decreased or increased by, say, 10 percent from the estimated level, the cost of the other products would rise or fall by about 1.2 percent in order to preserve the objective of allocating the total cost of operations to the individual products.

Similarly, a decrease or increase in the revenue derived from the sale of distillates would trigger a reciprocal adjustment in the cost of gasoline even though the revenue from the sale of both gasoline and heavy fuel oil remained unchanged.

Any deviation in the revenue obtained from the sale of any particular product from the level upon which the initial cost calculations were made has to be offset in the cost of those products which were unchanged.

Some of these effects obviously do not reflect any meaningful change in the realizable value of the affected products. But since the effects are small and are merely a component of an otherwise helpful internal costing system, they are not troublesome in practice.

Table I-16 shows the effects on costs if there is no change in the total cost of making products and if the total volume remains unchanged, but if there is a shift in product slate away from the products with higher market value (Mix Variation 1) or towards these products (Mix Variation 2).

TABLE I-16

Variations in the "Costs" Allocated to Products when the Mix Changes but Total Volume is Constant

	Sales Realization Method					
	"Cost" Base See Table I-15		Mix Variation 1 Gasoline Volume *Lowered*, Distillate Volume Raised		Mix Variation 2 Gasoline Volume *Raised*, Distillate Volume Lowered	
	Units	"Cost" Per Unit	Units	"Cost" Per Unit	Units	"Cost" Per Unit
Gasoline — unleaded . .	250	$38.16	225	$38.48	275	$37.84
— leaded	250	35.77	225	36.08	275	35.47
Distillate — light	150	33.39	175	33.67	125	33.10
— heavy	150	31.00	175	31.27	125	30.74
Heavy fuel oil	140	24.00	140	24.00	140	24.00
Total	940	33.51	940	33.51	940	33.51

Mix Variation 1 increases the costs allocated to each product (except heavy fuel oil), while Mix Variation 2 decreases the costs allocated to each product (except heavy fuel oil). Again these changes may not truly reflect any change in the realizable value of the various products.

A shift of 10 percent above or below the units of gasoline produced in the cost base and offset by an equal volume of distillate causes a deviation of less than 1 percent in the cost allocated to each product. This deviation ranges from 26 to 32 cents per barrel, equal to 0.74 to 0.91 cents per gallon or 0.16 to 0.20 cents per litre.

The next table, Table I-17, shows the effect of a 10 percent increase (Vol. Variation 1) or decrease (Vol. Variation 2) in the number of units of crude oil processed, holding the product mix constant. In these examples, the total cost of making products does not remain constant, as it did when only the mix of products changed.

TABLE I-17

Variations in the "Costs" Allocated to Products when the Total Volume Changes but the Mix Remains Constant

	Sales Realization Method					
	"Cost" Base See Table I-15		Vol. Variation 1 Crude Runs Increased		Vol. Variation 2 Crude Runs Decreased	
	Units	"Cost" Per Unit	Units	"Cost" Per Unit	Units	"Cost" Per Unit
Gasoline — unleaded	250	$38.16	275	$38.01	225	$38.34
— leaded	250	35.77	275	35.64	225	35.94
Distillate — light	150	33.39	165	33.25	135	33.54
— heavy	150	31.00	165	30.88	135	31.15
Heavy fuel oil	140	24.00	154	24.00	126	24.00
Total	940	33.51	1034	33.39	846	33.65

The shift of 10 percent above or below the units of crude running associated with the cost base accompanied by a relative increase or decrease in the total volume, but not the mix, of products causes a deviation of less than ½ of 1 percent, ranging from 12 to 18 cents per barrel, 0.34 to 0.51 cents per gallon, or 0.07 to 0.11 cents per litre.

A final way in which changes in product mix and volume throughput affect the allocation of costs in a refinery can be seen when a dramatic decline in the amount of crude oil processed is assumed to have occurred.

In Table I-18 which follows, the decline in volume that was measured in the preceding Table I-17 was carried through to the level of about 55 percent of nominal daily capacity of the theoretical refinery. At this level, refining operation on a round-the-clock basis for many refineries starts to become impracticable, as separation of the various petroleum fractions cannot be kept in sufficient control to maintain product specifications.

TABLE I-18

Variations in the "Costs" Allocated to Products when Crude Runs are at or Below Various Levels of Capacity

	Sales realization method Allocated "cost" of Products When Units of Crude Runs are:					
	1,100	1,000	900	800	700	600
Gasoline — unleaded	$38.01	$38.16	$38.34	$38.57	$38.85	$39.24
leaded	35.64	35.77	35.94	36.16	36.42	36.79
Distillate — light	33.25	33.39	33.54	33.74	34.00	34.33
heavy	30.88	31.00	31.15	31.33	31.57	31.89
Heavy fuel oil	24.00	24.00	24.00	24.00	24.00	24.00
Total	33.39	33.51	33.65	33.83	34.06	34.36

The decline in capacity here produces a substantial increase in the unit cost of the slate of products produced, and the product costing system interacts with the capacity effect to produce even larger proportional increases in the costs allocated to products.

It is apparent that the sales realization method of developing costs, although possibly the most commonly used, is not a measure of real costs, as no system for allocating joint costs can be. But it is generally regarded as an acceptable basis for inventory evaluation purposes and for the measurement of internal performance, because it tends to reflect, in part, the relative value of the individual products in the marketplace.

(ii) "Cost" Method B: By-Product Value

This method treats all products, except the two grades of gasoline, as by-products. The total revenue derived from their sale is deducted from the total cost of operations to arrive at the net cost of gasoline. The cost of each grade of gasoline is then derived by adding to or subtracting from the resultant average cost an amount which reflects the relative value of the gasolines when sold in the marketplace.

The by-product value method of cost allocation in the example shown assigns a cost of distillates as well as of heavy fuel oil equal to the revenue obtained in the marketplace. In the accounting records, therefore, these products would show no profit or loss when sold.

The cost of making gasoline, however, is significantly reduced from the level established in "Cost" Method A: Sales Realization, and sales of the two grades of gasoline would show a profit, indeed the only profit accruing from the operation.

This system is most useful if the refinery was built primarily to produce gasoline. It is seldom used in Canada where distillate products serve an important function as heating oils and light and heavy duty transportation fuels.

TABLE I-19

"Cost" Method B: By-Product Value

	Revenue Base			"Cost" Base		
	Number of Units	Unit Revenue	Amount	Number of Units	Unit Cost	Amount
Cost of operations						
Crude oil					$30.00	$30,000
Conversion expense					1.50	1,500
Total				1,000	31.50	31,500
Revenue and cost estimates						
Distillate — light	150	$42.00	$ 6,300	150	42.00	6,300
— heavy	150	39.00	5,850	150	39.00	5,850
Heavy fuel oil	140	24.00	3,360	140	24.00	3,360
Conversion fuel				60	N/V	—
	440	35.25	15,510	500	31.02	15,510
Net "cost" of gasoline				500	31.98	15,990
Net "cost" allocated to each grade of gasoline at unit revenue						
Unleaded	250	48.00	12,000	250	33.01	8,253
Leaded	250	45.00	11,250	250	30.95	7,737
	500	46.50	23,250	500	31.98	15,990

(iii) "Cost" Method C: Replacement Value

In this method, a replacement cost of gasoline is developed by running enough extra crude oil to produce 50 more units of gasoline while maintaining the volume of distillate at the same level as in "Cost" Method A: Sales Realization. While the indicated yield of gasoline could not be achieved at a specific time, adjustments could be made far enough in advance to accomplish the desired mix of products. The unit cost of the two distillate products also corresponds to the cost shown in Method A.

The replacement cost of the two grades of gasoline can be derived from the following calculation:

TABLE I-20
Calculation of Replacement Cost

	Unleaded	Leaded
Amount allocated		
"Cost" base Method C	$10,428	$ 9,776
Less: cost base Method A	9,539	8,943
Difference	889	833
Increase in number of units made	25	25
"Cost" per unit	35.56	33.32

The replacement or incremental cost per unit illustrated above is about 7 percent lower than the unit cost estimated in "Cost" Method A. The final cost assigned under this method is a weighted average of the sales realization method cost and the replacement cost.

TABLE I-21

"Cost" Method C:
Replacement Value

	Revenue Base			"Cost" Base		
	Number of Units	Unit Revenue	Amount	Number of Units	Unit Cost	Amount
Cost of operations to increase gasoline volume by 10%						
Crude oil					$30.00	$31,950
Conversion expense					1.43	1,513
Total				1,065	31.43	33,463
Revenue and cost estimates						
Gasoline — unleaded	275	$48.00	$13,200	275	37.92	10,428
— leaded	275	45.00	12,375	275	35.55	9,776
Distillate — light	150	42.00	6,300	150	33.39	5,008
— heavy	150	39.00	5,850	150	31.00	4,650
	850	44.38	37,725	850	35.13	29,863
Heavy fuel oil	150	24.00	3,600	150	24.00	3,600
	1,000	41.34	41,325	1,000	33.46	33,463
Conversion fuel				65	N/V	—
Total				1,065	31.43	33,463

(iv) "Cost" Method D: Import Related Value

The import related value method bases cost on import prices. In this example, the basis for cost estimating is the spot price for products available for export from Rotterdam in the month of December, 1982.

No attempt was made either to equate the product prices to crude oil or to estimate refinery operating expenses, since these factors are not required for the purpose of developing cost in "Cost" Method D.

Unleaded gasoline was not available from Rotterdam and the price shown was estimated from the price relationship of that product and leaded gasoline prevailing in the U.S. Gulf export market in December, 1982.

Prices in Rotterdam tend to reflect the higher value placed upon the heavier products in the European markets and the relatively smaller demand for the gasoline fraction.

TABLE I-22

"Cost" Method D: Import Related Value
Spot Price Postings for Export at Rotterdam

	Import Related			"Cost" Base		
	Number of Units	Unit Price	Amount	Number of Units	Unit Cost	Amount
Cost of operations						
Crude oil					$30.00	$30,000
Conversion expense					1.50	1,500
Total				1,000	31.50	31,500
Import and cost estimates						
Gasoline — unleaded	250	$34.00	$ 8,500	250	33.87	8,647
— leaded	250	33.18	8,295	250	33.05	8,263
Distillate — light	150	37.93	5,690	150	37.79	5,668
— heavy	150	38.43	5,765	150	38.28	5,742
	800	35.31	28,250	800	35.18	28,140
Heavy fuel oil	140	26.11	3,655	140	24.00	3,360
	940	33.94	31,905	940	33.51	31,500
Conversion fuel				60	N/V	—
Total				1,000	31.50	31,500

(v) "Cost" Method E: °API Gravity

In this final example, the cost estimate is based on the relative °API gravity scale.

There is little to commend this method, but it further illustrates the extent to which methods have been devised in an attempt to arrive at a cost base that is satisfactory for inventory and other control purposes.

TABLE I-23

"Cost" Method E: °API Gravity Method

	Gravity Base			"Cost" Base		
	Number of Units	Unit Factor	Amount	Number of Units	Unit Cost	Amount
Cost of operations						
Crude oil					$30.00	$30,000
Conversion expense					1.50	1,500
Total				1,000	31.50	31,500
Gravity and cost estimates						
Gasoline — unleaded	250	59	14,750	250	40.06	10,014
— leaded	250	60	15,000	250	40.73	10,183
Distillate — light	150	42	6,300	150	28.51	4,277
— heavy	150	36	5,400	150	24.44	3,666
	800	52	41,450	800	35.18	28,140
Heavy fuel oil	140	10	1,400	140	24.00	3,360
	940	44	42,850	940	33.51	31,500
Conversion fuel				60	N/V	—
Total				1,000	31.50	31,500

These five methods of product costing have been shown to produce widely differing figures for the costs of products. Yet the variations have been limited by the assumptions used, in particular the assumption concerning the refinery yield and revenue of heavy fuel oil.

The variation in costs which result from the foregoing series of methods when applied to a single, larger size, cracking type refinery would show even greater variability if applied to a topping plant where the production of heavy fuel oil is three times as great.

None of the methods utilized for allocating costs to products appears to be completely satisfactory even for its intended use when applied to the broad spectrum of products which can be refined from crude oil and to the particular configuration of the plant. No two refineries are alike; there are differences in size, the equipment being operated, the efficiency of the processes, the type of products produced, the refining expense, the maintenance and repair experience and many other factors.

These methods are not intended to yield estimates of the true economic costs of producing particular petroleum products. None could yield such estimates. There is simply no correct solution to the joint cost problem. These methods are intended to serve various internal company purposes, and they may be useful when employed as intended. For other purposes, they may be misleading.

C. Conclusion

While product cost determinations are arbitrary, economies of scale and efficiencies of operating at optimum capacity are very real. They are of particular significance in Canada today.

Public attention has been focused on the shut down of refineries and announcements that others will close. There is significant excess refining capacity in Canada and oil companies today are no doubt examining their own situation and role in the future. Looming large in their deliberations will be considerations of the relationship between costs of distribution and the economic significance of increased levels of capacity utilization and economies of scale throughout the integrated operation, which can result in lower total product costs.

III Texaco Canada's Response to the Director's Allegations Concerning Petroleum Refining in Canada

This is Texaco Canada's answer to allegations made in the Green Books[7] concerning petroleum product exchanges by major Canadian refiners, including Texaco Canada. It contains the following:

(1) An analysis of the economic and technological factors that lead refiners to exchange petroleum products.

(2) A description of the economic benefits of these exchanges to the parties and to the Canadian public.

(3) An economic and legal analysis of the arguments, inferences and conclusions presented in the Green Books.

The Green Books contradict themselves in analyzing product exchanges. They admit that product exchanges occur for sound and legitimate economic and technological reasons and that these exchanges produce substantial economic benefits. But this recognition is at best grudging and the Director fails to appreciate the full significance of relevant economic considerations. This failure leads the Director to misconstrue the reasons product exchanges occur and to exaggerate the supposed anti-competitive features of certain arrangements that usually accompany them. Consequently, the Director applies inappropriate criteria in evaluating these exchanges and reaches the wholly incorrect conclusion that the exchanges, which, as the Director recognizes, make possible competition that would otherwise not exist, are somehow anti-competitive.

The Director's conclusions can be refuted simply through close evaluation of his evidence and the illogic of his inferences. Such an approach, however, would suggest only that the Director has not proven his case. Although Texaco Canada here provides such an analysis, the company believes product exchanges to be too important to the Canadian public to be defended only by refutation of the Director's case. This response, therefore, begins with the affirmative case for product exchanges among refiners.

A. The Reasons for Product Exchanges

(i) Refinery Technology and Economics

In Canada, as elsewhere in the world, petroleum refiners commonly buy refined products from one another, exchange them with one another and process crude oil for one another.[8] These transactions often involve substantial quantities of products. They occur because the technology and economics of refining and of distribution in this industry make such transactions necessary.

The modern petroleum refinery is large and expensive. Texaco Canada's newest refinery, located at Nanticoke, Ontario, would cost $1.3 billion to build today. This sum represents a very large fixed cost; variable costs, which consist mainly of the cost of crude oil, are much less significant in analyzing the economics of the industry, even though crude costs represent a large percentage of the price of most petroleum products. Because of the high fixed costs, refinery capacity must be utilized at a high rate in order to spread the fixed costs over a large

quantity of output and reduce the average cost per barrel of output. Average cost increases sharply as throughput (the usual measure of refinery utilization) decreases, while the marginal cost of additional production (excluding crude costs) is low.

Technology, as well as economics, dictates high levels of capacity utilization. Refineries have minimum capacities below which they simply cannot be operated.[9] While it is technically possible to start and stop a refinery to reduce average output below the minimum efficient capacity, start-and-stop operation is not economically feasible. For all practical purposes, a refinery must be run continuously (except when shut down for repairs) and at a relatively high level of capacity.

The output of a refinery is called a slate of petroleum products. The proportions in which these products are produced depend on the type of crude oil used as input and the technical configuration of the refinery. For a given refinery configuration, the refiner's control over the product slate is limited. A refiner can, for example, trade off gasoline production for middle distillate production, but only within a limited range. The range can be changed by expensive reconfiguration of the refinery. However, because of the time involved (not to speak of the costs), reconfiguring a refinery is not a practical way of making short term changes in a refinery's slate of products. In sum, the economics of refinery operation dictate the continuous production of high volumes of products in relatively fixed proportions.

(ii) The Relation Between Refinery Output and Marketing Requirements

The efficient level of output of an integrated refiner-marketer's refining operation will rarely match its marketing operation's requirements at any one time. The most significant reason for this intrinsic imbalance between refining and marketing is that the requirements of the marketing side for product tend to change, upwards or downwards, smoothly and more or less continuously, while changes in refinery capacity occur in large increments through the construction of new or the shut down of excess capacity. A refiner who constructs a new refinery is likely to have greater refining capacity than marketing requirements. Marketing requirements then may grow, pushing against and eventually exceeding refinery capacity until new capacity is constructed. In a situation where demand is contracting, a refiner-marketer may move from an excess capacity situation to a tight supply (or shortage) situation when a large refinery is closed, with future demand changes expected ultimately to remove the imbalance.

Regional factors also are relevant. A new marketing operation, perhaps in a region not previously served by the refiner-marketer, will often be too small to justify refinery construction. Transportation costs may make it uneconomical to supply the new market area from the refiner-marketer's existing refinery, and the new entrant must therefore seek supplies from another refiner's facilities.

As the Canadian refining industry moved to take advantage of economies of scale in refining in the post-war period, transportation costs in product distribution became an increasingly significant aspect of petroleum economics. Widely scattered small refineries gave way to larger refineries where economies of scale provided a significant cost advantage. As a result, refineries became more geographically concentrated and products were increasingly distributed through new pipeline systems to marketing areas distant from refineries. Long lines of distribution, however, are costly, and therefore companies sought to shorten these lines and save transportation costs.

The introduction of the National Oil Policy (NOP) in 1961 created additional regional imbalances. The NOP prohibited the shipment of products made from foreign crude oil to the area west of the Ottawa Valley line, an area reserved for products made from domestic crude oil. Petroleum companies with marketing requirements on both sides of the line, but with refining facilities on only one side, were faced with imbalances created by the NOP.

Short term imbalances between marketing requirements and refinery output may also arise because of the need to shut down a refinery for repairs. The costs of maintaining inventory are too high to permit stocking sufficient products to insure against output interruptions, and once again a refiner may have to turn to a competitor to help deal with an emergency situation.

Moreover, the product mix produced by a refinery is unlikely to match the refiner's marketing requirements. The marketing side of the operation sells each product separately. However hard the marketing department might try to coordinate its sales activities with refinery output, it is highly unlikely that it will sell products in the proportions in which they are produced. Moreover, demand for product is seasonal, especially in Canada with its extreme changes in weather conditions; the seasonal shifts in demand for different products may be greater than can be economically accommodated by shifting refinery product slates. Seasonal shifts in demand are exacerbated by the shutting down of some marine transportation in winter.

As a result of these technological and economic factors, refiner-marketers obtain some of their product requirements from other suppliers. Conversely, in order to operate their refineries efficiently, they may need to produce more product than their own marketing operations sell. These conditions will typically hold for the aggregate of a refiner-marketer's operations. More importantly, they are likely to hold within the geographic area economically served by a single refinery. Thus a refiner-marketer may find that it needs additional product of one or more types in the geographic area economically served by one of its refineries, while producing more product than its marketing operation requires in the area economically served by another of its refineries. Where the refiner-marketer's production and marketing needs are in balance in the aggregate, but are not in balance in each area, it would be theoretically possible to transport product from one area to another in order to leave each area in balance. Transportation of petroleum products is expensive. Any different approach that resulted in balance in each area while avoiding transportation costs would both reduce the social waste of unnecessary transportation and allow the refiner-marketer to sell products at a lower price.

(iii) Balancing Refinery Output and Marketing Requirements

(a) The Limitations of the Spot Market

Were there well developed commodities markets for petroleum products, many of the transactions necessary to produce balance between marketing needs and refinery production could be handled through ordinary market mechanisms. In practice, many requirements are satisfied in this way. Refiner-marketers facing short term product shortages due to unanticipated refinery shut downs, delayed deliveries and the like, typically buy additional product from the primary source of product, other refiners. Production in excess of marketing needs is sold to other refiners facing spot shortages and to other marketers, notably independent gasoline or fuel oil marketers.

While the relatively thin market for bulk petroleum products may be adequate to handle these short term transactions, it is less suitable as a way to bring longer term mismatches between desirable levels of refinery output and marketing needs into balance. Efficient refinery utilization depends on stability and predictability in the disposition of refinery output. Given the great economic advantages available to those who are able to run their refineries consistently at the most efficient levels, while producing the most valuable possible slates of refined products, refineries prefer to rely on long term contractual arrangements, rather than on the vagaries of the spot market,[10] in order to avoid periodic shut downs or periodic slow downs to less efficient levels of production. Rational planning of efficient refinery expansion (or of the possible closing of unneeded facilities) similarly depends on stable and predictable demand for refinery output, again suggesting long term arrangements rather than spot markets. On the marketing side, long term arrangements are desirable for similar reasons. Both commitments to customers and investment in marketing facilities depend on a stable and predictable supply of product at reasonably predictable prices, and spot markets are unreliable for this purpose. The logistical problems raised by transactions involving large volumes of volatile liquids also favor long term arrangements under which it is economical to install or contract for the specialized facilities needed for transportation and storage.

(b) The Forms of Long Term Transactions

Long term arrangements used in the petroleum industry take a number of different forms. Many of the transactions are simply sales contracts, with the delivery spread out over a considerable period of time. The typical supply agreement will, implicitly or explicitly, specify a range of volume which may change hands under the contract. Almost always, the seller is a refiner. The buyer may be another refiner or simply a marketer of petroleum products.

Because many of the participants in these long term arrangements are integrated petroleum companies, with production, refining and marketing facilities, many of the transactions are not simple sales of product. A refiner may, for example, have a shortage of product in a certain location while another refinery may have capacity available in that location. A processing agreement may then be negotiated under which a fee is paid for the processing of one company's crude oil by the other.

Frequently, the product needs of two refiner-marketers are complementary. They might enter into a reciprocal processing agreement or alternatively they might simply exchange product. Each would save transportation costs by delivering product to the other company at one location and receiving product from it at the other.[11]

In other cases, one company may have product available at a time when the other needs it, anticipating that the situation will be reversed some time in the future. The companies may then arrange a transaction that is the conceptual equivalent of two separate sales, one at each location, or one for each time period. Typically, however, the transactions do not take the form of two independent sales. Rather, they are cast as some variety of exchange. If locational imbalances are involved, whereby one company's shortages are complemented by another's surpluses, they may exchange product at one location for product at another. If imbalances between time periods are involved, companies exchange product at one time for product at another. In either case, if the products exchanged are of equal value, the transaction is likely to take the form of an exchange. If the products are of different values,

money will be added to the transaction to equalize the values. In either event, the transaction is typically referred to as an exchange.

When money is used to equalize for differences in volume or differences in value associated with differences in time, the transaction would usually take the form of a "purchase/sale."[12] Because either kind of transaction requires that both parties have product available to deliver and both have a need for product to be delivered, parties to such a transaction are normally refiner-marketers. Exchanges and purchase/sale agreements also may be made with large jobbers who are not refiners but who have substantial terminal or storage facilities.

A product exchange is equivalent to two simultaneous and linked sales, with the terms structured to meet the needs of the contracting parties. The linkage between the two sales is an important part of the transaction, making it more attractive than separate and independent transactions. The attractions of the linkage depend on the type of transaction.

(c) The Benefits of Reciprocity

Structuring a transaction that reduces locational imbalances for both parties as a simultaneous exchange of product (rather than as unrelated sales and purchases) has several advantages for the parties. First, it reduces the risk that either party will default on its obligations. In any simple sales contract involving delivery over an extended period of time, there is the possibility that changing market conditions will create better opportunities for the supplier (or the buyer) than the existing contract provides. In that event, economic pressures may induce one or another of the parties to try to find a way to break the contract or to minimize its obligations under the contract. If, however, each party is simultaneously a buyer and a seller, each bears the same obligations and faces the same incentives and is in a position to retaliate if the other breaks its contract. The likelihood that either will breach is therefore reduced.

Second, structuring the transaction as an exchange reduces credit risks. The offsetting product obligations reduce (and may even eliminate) the cash aspect of the transaction. At least where both parties are performing their parts of the arrangement simultaneously, the credit worthiness (or payment habits) of the parties is largely irrrelevant. Either side can simply cease performing when and if the other side fails to meet its obligations.

Third, use of the exchange format allows both parties to control certain risks normally associated with supply agreements. Transactions for imprecisely specified quantities of product present risks to the seller. In particular, it may be difficult to write a contract that will adequately limit the quantities that the buyer is authorized to receive to amounts that the seller can reasonably anticipate and can conveniently provide, without at the same time compromising the flexibility that both parties may desire in light of unpredictable future changes in supply and demand conditions. An agreement for a fixed quantity may not satisfy the needs of either party, at least if the parties intend that transactions at that level must occur regardless of future events. And a contract giving the buyer a basically open-ended call on the supplier will be unacceptable to the latter because unanticipated demands under such a supply agreement can leave the supplier short of product for his other customers or his own distribution network.

Reciprocal supply agreements reduce the prospect of unanticipated product demands because each party will realize that such demands could lead to similar demands by the other

party. In some situations, the buyer may not even be able to obtain a supply agreement without giving the supplier this technique for controlling his risks. Sellers who might be willing to enter into supply arrangements without the protections of a reciprocal agreement would obviously charge substantial risk premiums and in practice there is no guarantee that the market would produce such sellers. It may be, therefore, that the only way buyers can economically obtain supply agreements for large amounts of product is for them to provide a similar agreement in return.

Finally, the thinness of the market for large quantities of petroleum products means money cannot always secure rights to large quantities of product except at unreasonably high cost. No such quantities may be on the market when they are needed. Companies in the industry, therefore, may well seek to secure these rights in kind instead of trying to maximize profits, at great risk, by speculating in the market for large quantities of refined products. A product-for-product exchange eliminates the risk that the proceeds of a sale at one location cannot be translated into appropriate volumes of product at another location, and therefore increases the attractiveness of the transaction to both parties.

An exchange transaction that reduces imbalances between time periods for both parties, called a leapfrog exchange, presents similar advantages to the transacting parties. All of the advantages of simultaneous exchanges apply to leapfrog exchanges, provided that the parties anticipate a series of such exchanges. Even if the parties do not anticipate repeated leapfrog exchanges, the advantages of reduced credit risk and assurance of supply fully apply, and the advantages of reduced incentive for breach and reduction of risk in supply agreements apply partially. Moreover, leapfrog exchanges serve to reduce the risk associated with unanticipated price changes. The current supplier (and future recipient) locks in the price for his future supplies by paying for them now with present supplies of a more easily predicted value. The current recipient (and future supplier) similarly locks in the price he will receive for the product he will supply in the future, the value of which is relatively difficult to predict. Both benefit from the ability to plan on the basis of guaranteed volumes in future transactions. This security results from consummating the transactions on the basis of current perceptions about price trends rather than waiting for future developments in the marketplace to determine the quantities that will be sold or received. Leapfrog exchanges are attractive when a company has a shortage of supply at present but expects to have excess supply in the future.

For example, a refiner with 300,000 barrels of gasoline to sell today and an anticipated need for 300,000 barrels next year could sell his excess today and contract for delivery of the same quantity next year. Except for anticipated price changes, the net cost is zero and the refiner's future supply needs are satisfied regardless of future unanticipated price changes. A leapfrog exchange accomplishes precisely this. The reasons for relying on an exchange rather than on independent transactions have to do with the other advantages of exchanges and with the thinness of future markets.

B. Economic Benefits of Sales and Exchanges Among Refineries

Exchange transactions increase the economic efficiency of both refining and marketing operations. These transactions make it possible for refiners to operate facilities large enough to capture available scale efficiencies and to operate those facilities more consistently at efficient levels of capacity utilization. The alternative to relying on these transactions would

be for each refiner-marketer to supply its marketing needs solely from its own refineries. A refiner-marketer could accomplish this in two ways. It could construct (or retain in use) refineries of efficient scale and, until its marketing needs matched its capacity, operate them below their efficient level of capacity utilization, without trying to produce at higher levels in order to supply the local needs of other refiners that might not have available capacity. Alternatively, it could construct (or retain in use) refineries smaller than the minimum efficient scale and operate them at their efficient level of capacity utilization.[13] This approach would lead to use of inefficient facilities; the former approach would leave excess capacity available longer than would otherwise make economic sense. In either event, the efficiency of refining would be lower than could be achieved with efficient scale refineries operating at efficient levels of capacity utilization, which exchange transactions permit. In other words, these transactions permit the petroleum industry to match supply with demand without generating socially wasteful excess refinery capacity or producing socially wasteful inefficient refineries. Only if the transactions led to a level of refinery capacity below that which is efficient and socially desirable would this avoidance of excess capacity be subject to criticism. Texaco Canada does not understand the Director to allege that Canada has typically suffered from insufficient refinery capacity.[14]

The efficiencies on the marketing side are also substantial. The greatest efficiency is in the elimination of unnecessary transportation costs. Exchanges make it unnecessary for two competing refiner-marketers to ship the same product between the same two locations, but in opposite directions. Each simply swaps with the other. Both end up exactly as they otherwise would be, except that both save a considerable amount in transportation costs and are able to compete more effectively in each market.

Transactions of this kind also reduce the inventory levels required to maintain a continuous flow of petroleum products to consumers. Without exchanges and other similar transactions among refiners, any refiner would have to insure against interruptions in supply resulting from refinery breakdowns, transportation difficulties and so forth, by maintaining substantial inventories, at considerable cost. The network of product exchanges in effect spreads the risk of isolated supply interruptions over much of the industry. As a result, the inventories required to insure against these events need not be duplicated by each refiner. The aggregate amount of inventory required is therefore substantially reduced from what it would be if each refiner separately insured against this risk. This collective maintenance of inventories requires no collaboration among refiners, but results instead from individual profit maximizing decisions about inventory levels by refiners aware that they can, when necessary, obtain product from sources other than their own refineries.

In sum, the pattern of product transactions among refiners allows petroleum products to be produced and marketed at substantially lower cost to the Canadian consumer than would be the case if refiners were not able to engage in these transactions.

Transactions among refiners also permit increased levels of competition in the marketing of petroleum products. These transactions allow refiner-marketers to compete in the marketing of petroleum products in areas located too far from their own refineries to be supplied economically.[15] Increasing the number of substantial competitors benefits the Canadian public.[16]

The economic benefits of exchange agreements among refiners are well illustrated in materials provided by Texaco Canada in response to the Director's request. These materials, which concern product transactions involving Texaco Canada in 1981, show,[17] *inter alia*, that

- Texaco Canada competed as a marketer in most of British Columbia entirely on the basis of product purchased from one refiner or obtained through a processing agreement with another. The company could not economically supply most of this area of British Columbia from its own refineries. To the extent it could, the transportation costs would be substantial.
- Texaco Canada competes as a marketer in Saskatchewan and Manitoba primarily on the basis of product exchanges with other refiners. Texaco could supply some of these areas from its own refineries, but reliance on exchanges allows both parties to the transaction to avoid considerable transportation costs. It might not be economically feasible to supply some of these areas from Texaco Canada refineries.
- In certain areas of Ontario, Texaco Canada competes as a marketer primarily on the basis of product obtained through an exchange with another refiner. Considerable savings in transportation costs result from this exchange.
- Texaco Canada achieved significant savings in transportation costs by supplying its marketing needs on Cape Breton Island in exchange for product from its Halifax refinery.
- Efficient operation of Texaco Canada's refineries depends on the product they provide to other refiners. Texaco Canada's refineries dispose of substantial portions of their output to other refiners through exchanges. While output would not fall by the full amount of these exchanges if they did not occur (because the company might conceivably be able to market some of the product through its own distribution channels), capacity utilization would fall substantially. The result would be less efficient refinery utilization.

The various types of exchange transactions in petroleum products described above permit efficient utilization of Canadian refinery capacity, help minimize wasteful excess capacity, save millions of dollars in transportation costs and save additional dollars through the avoidance of unnecessarily large inventories. While these economic benefits obviously are of substantial importance to the companies involved, ultimately they result in lower cost petroleum products for the Canadian consumer.

C. The Director's Objections

The Director is obviously aware of the economic benefits of exchange transactions. In particular, the Director recognizes that economies of scale in refining are significant and that the transactions at issue here may prevent "the massive economies of scale that exist at the refining level from causing a similar level of concentration to develop in marketing."[18] Moreover, the Director recognizes that product exchanges serve "to avoid duplication of refinery facilities and overcapacity" and that because of "timing problems . . . in planning the sequencing of refinery expansion . . . exchanges could facilitate optimal investment programmes".[19] Finally, the Director's analysis of various seized documents makes clear that the Director recognizes that product exchanges may result in significant savings in transportation costs.[20] In light of these benefits to the companies and to the Canadian public, it is hardly surprising that the Director concedes that there are reasons for these transactions that have nothing to do with reducing competition[21] and that "inter-refinery product trades . . . need not be harmful to competition".[22]

Despite the Director's recognition of the fundamental economic benefits of inter-refinery product exchanges, the Director in effect charges that the pattern of transactions supports his assertion that the major refiner-marketers constitute a vast anti-competitive conspiracy. He asserts that exchange transactions were intended not merely to improve economic efficiency, "but also to deter entry and to strengthen interdependence in the refinery sector and, as a result, to reduce competition at the wholesale and retail level in the marketing sector."[23]

This charge is preposterous. It rests on a misunderstanding of the economics of these transactions, on a demonstration of effects that, as Texaco Canada will show in its marketing evidence, is simply incorrect, on a near total absence of relevant evidence, and on bald assertion.

At the most general level, the Director contends that the pattern of transactions is anticompetitive because it increases interdependence and the sense of interdependence among refiners.[24] While it is surely true that the transactions in question do increase interdependence, such interdependence is neither undesirable nor anti-competitive, as Texaco Canada will demonstrate in the next section of this submission.

Also at a general level, the Director contends that the challenged transactions led to "discretionary power," at least for two refiners.[25] Texaco Canada is not one of those two refiners; it cannot comment in detail on their behaviour. However, as Texaco Canada will show below, the Director's allegation, to the extent that it can be understood, appears not to involve anti-competitive activity.

The Director's final general allegation is that the network of transactions depends on an anti-competitive "entry fee."[26] Texaco Canada shows below that the Director's discovery of either anti-competitive intent or effect depends on a simple misunderstanding of the nature of this entry fee.

On a more specific level, the Director alleges that certain provisions in transactions among refiners are anti-competitive. The conclusion that these provisions are anti-competitive rests not on a determination that the actual transactions adversely affected competition in petroleum marketing in Canada, but rather on the Director's determination that it is possible to imagine transactions that would have promoted competition more than did the actual transactions.[27] The fallacy here (also to be explored in more detail below) is that the Director's imagined transactions would not take place even among companies in a perfectly competitive market. The provisions to which the Director objects are essential to the transactions. To the extent they are restrictive, the restrictions are merely ancillary to the transaction and have no anti-competitive significance.

Finally, the Director alleges a pattern of anti-competitive refusals to enter into certain transactions. Even were this allegation supported by evidence, which it is not, it would not, of course, show that the transactions that refiners do enter are anti-competitive.

The sections that follow address these issues in more detail.

(i) Increased Interdependence

The Director states that "[t]he degree of industry concentration and the extent of refinery linkages together helped to create a strong feeling of interdependence among the four national majors . . . ."[28] There is, of course, some truth to this conclusion, but there is nothing sinister or anti-competitive about it. As already noted, the Director recognizes the inherent limitations on the number of refineries the Canadian refining industry can support. Given

those limitations, a degree of interdependence is unavoidable. The actions of substantial companies in markets such as this one necessarily affect competitors. Moreover, the refinery linkages (the Director's pejorative phrase for the transactions discussed above), achieve their economic benefits for the industry and the nation precisely by creating interdependence of supply channels.

The Director attempts to make this interdependence look sinister in four ways. First, the Director shows that some of these companies recognized their interdependence. This, however, shows nothing more than that large companies in an industry with a small number of participants are likely to recognize that each will notice and react to actions taken by the others. They would do so regardless of whether transactions among the companies increased the sense of interdependence. Documents demonstrating this recognition therefore have no independent significance. They certainly do not show that exchange transactions were entered into for the purpose of conveying a sense of interdependence.

Second, the Director asserts that some of the exchange transactions were complex. To those not familiar with ordinary business practices in the petroleum industry, the fact that some transactions involve multiple parties and the use of such terminology as leapfrogging may well convey an air of the exotic, even the bizarre. But the Director, though implying that the transactions were unnecessarily complex, never shows a single feature of such a transaction that was not in the best interests of the parties involved, or that the complexity of any transaction could have been reduced without reducing the economic benefits of the transaction.

Third, the Director points to the exchanges of information that accompany these transactions.[29] Undoubtedly, information about competitors is useful, and again, the Director implies that too much information is exchanged. It should be apparent, however, that the economic benefits of these transactions depend on careful planning, planning that requires significant amounts of information.[30] To make something sinister or anti-competitive of these exchanges of information, the Director would have to show that transactions involved the exchange of information that was unrelated to negotiating the terms of the transaction, or that transactions, otherwise undesirable on economic grounds, were entered into only because of the information thereby made available. This the Director has not done. As he concedes, ''intra-refinery trades and the accompanying exchange of information need not be harmful to competition.''[31]

Fourth, apparently unable to demonstrate anti-competitive purpose or effect at the refinery level, the Director relies on his marketing volume to support his allegations.[32] This strategy fails for two reasons. It fails because, as Texaco Canada will demonstrate, the Director's allegations in the marketing volume cannot withstand analysis. But it also fails because the Director does not demonstrate that the anti-competitive behaviour he alleges at the marketing level is influenced in any way by transactions among refineries. Even conclusive proof of anti-competitive collusion in the marketing sector, which the Director of course does not provide, would not alone serve to establish that transactions among refineries are collusive or anti-competitive.

The Director has discovered that each geographic section of Canada can only support a limited number of refineries, and that the companies in the industry increase their efficiency and the efficiency of the industry as a whole by engaging in certain transactions that serve to avoid excess capacity, insure efficient operation of facilities and avoid both unnecessary

transportation costs and unnecessary maintenance of inventory, while at the same time increasing the number of competitors in petroleum marketing. In these respects — none of them sinister — this is indeed an interdependent industry. More than this the Director has not discovered.

(ii) Discretionary Power

The Director alleges that two refiners, Imperial and Gulf, were "virtually self-sufficient" and "possessed discretionary power."[33] As the Director does not allege that Texaco Canada "possessed discretionary power," the company will leave any defense to this charge to the companies accused.

While Texaco Canada can address neither the accuracy nor the completeness of the Director's evidence concerning self-sufficiency and discretionary power, the company notes that, as described, the incidents show nothing more than that two of the largest companies in an industry limited by economic and technological factors to a small number of companies, were able to obtain the terms they sought in negotiations. The use of the phrase discretionary power to describe the ability of one company to persuade a second company to agree to terms the first company finds desirable adds nothing useful to the analysis.

The Director's allegations concerning discretionary power amount to yet another discovery that there are inherent, and unavoidable, limitations on the number of refineries Canada can support, together with the additional discovery that two companies in that industry are larger than the others. These discoveries, while correct, demonstrate neither collusion nor anti-competitive intent or effect.

(iii) "Entry Fee"

The Director alleges that "companies which had not made a sufficient investment in refining capacity or in marketing distribution facilities" at the location where they sought product, that is, companies which had not "paid an 'entry fee,' " either would "not be supplied or would be penalized in the terms of the supply agreement."[34] The evidence presented does not support the allegation that companies not paying an entry fee would not be supplied,[35] though it does suggest that individuals within some supplying companies thought the extent of the buyer's investment to be of importance in such situations.

Even if the allegation were supported by evidence, it would not amount to a charge of anti-competitive behaviour. The Director appears to have chosen an unfortunate misinterpretation of the imprecise term entry fee. The term in fact signifies nothing more than that a company lacking its own facilities cannot offer an advantageous exchange. Texaco Canada has shown above why reciprocity in product transactions is desirable. A company lacking refining capacity in a region cannot reciprocate in the future when the supplier is in short supply and, depending on the situation in other regions, may not be able to offer a desirable simultaneous exchange. A potential supplier might reasonably refuse a supply agreement that cannot be reciprocated, and such a refusal does not indicate anti-competitive intent. It indicates only sound business judgment.

There are also sound business reasons for preferring that the buyer in a supply agreement have a significant investment in facilities other than refineries. Such investment serves to stabilize the buyer's demand for product from the supplier, and therefore to lend predictability to product requirements under a supply agreement. Without this stability and predictability, a supply agreement is unattractive to the seller, for reasons discussed above.

In order to suggest that the entry fee is anti-competitive, the Director puts forth two theories, neither of which withstands analysis, as the Director recognizes, in part, by himself rejecting the first. The Director rejects as ''insufficient'' the theory that the ''entry fee'' is designed to reduce a competitor's profitability by making him spend money on unnecessary or inefficient facilities.[36] The Director fails to note that this theory is also inconsistent with the Director's recognition that transactions among refiners are intended to avoid excess capacity in refining. According to the Director's profitability theory, the refiners must have sought to avoid excess refining capacity by inducing their competitors to install additional refining capacity. Such a theory, obviously, makes no sense.

The Director's second theory posits that refiners imposed an entry fee in order to increase the efficacy of predation in the marketing sector. The notion is that predation is not effective against a company whose costs are largely variable.[37] Texaco Canada will demonstrate that the Director's allegations concerning predation in the marketing sector cannot withstand analysis, in part, precisely because the alleged targets of predation could, as the Director here asserts, ''withdraw from the market at little cost . . . during the period when predation is being practised.''[38] On the Director's own analysis, predation by refiners in the marketing sector could be effective only against other refiners, and that is not the predation the Director alleges in his marketing case, which focuses on allegations of predation against unintegrated independents. Moreover, the Director's predation theory amounts to the wholly implausible proposition that major refiners sought to induce marketers to build new, and almost certainly excess, refining capacity — with the adverse economic consequences that would entail — simply so that these new entrants into refining would be vulnerable to predation in the marketing sector. If this theory had any plausibility whatever, it would undermine the Director's argument that the major refiners entered into exchange agreements for the purpose of deterring entry into refining.[39] Thus the second theory, like the first, falls of its own weight and no theory remains to explain how the entry fee serves to reduce competition.

(iv) Restrictive Provisions

The Director objects to product transactions among refiners because some of them contain clauses that in his view restrict competition.[40] The restrictive clauses attracting the Director's attention are clauses limiting the volumes exchanged, clauses requiring that reciprocal volumes be exchanged and clauses limiting resale of exchanged products to certain geographical areas or to certain modes of commerce. In the Director's view, such clauses have the purpose and effect of allocating markets and market shares among competitors and of reducing competition.[41]

The Director does not appear to charge that the transactions including the restrictive clauses resulted in less competition than would have occurred without the transactions at all. Rather, he charges that the transactions including the restrictive clauses resulted in less competition than would have resulted had the same transactions occurred without the restrictive clauses.[42] In other words, the Director charges refiners with failure to use product exchanges to promote competition, or to assist their competitors, to the maximum extent theoretically possible.

It may well be that Texaco Canada, as well as the other major refiner-marketers, could have written their contracts to be less beneficial to themselves and more beneficial to their competitors. Texaco Canada does not concede, however, that competition policy either does

or should impose on companies an obligation to provide such assistance to its competitors, or even to promote competition to the maximum extent possible. In Canada and elsewhere, the proper scope of competition policy is the prevention of unreasonable restraints on competition. Texaco Canada and other refiners had an obligation to avoid unreasonable restraints of trade, not an obligation to act against their own interests as competitors by affirmatively promoting the competitive efforts of others. Refiners are business organizations, not charities or government agencies with a mandate to provide assistance to other business organizations.

The proper standard for evaluating restrictive provisions in contracts is not whether the provisions promote competition to the maximum extent possible, but whether they unreasonably restrain competition. From eighteenth century common law to the present, competition policy has recognized that some restrictive provisions in contracts are neither unreasonably restrictive of competition nor socially undesirable.

Restrictive contractual provisions that are subordinate to the main lawful purpose of a larger transaction are held lawful if they are reasonable.[43] The legitimacy of reasonable ancillary restraints was first recognized with regard to covenants not to compete ancillary to the sale of a business. In 1894, the House of Lords stated the test of the lawfulness of an ancillary restraint to be ''whether the restraint is such only as to afford a fair protection to the interests of the party in favour of whom it is given, and not so large as to interfere with the interests of the public.''[44]

Product and supply agreements promote such competitive goals as efficiency and facilitation of new entry that would otherwise not take place. Approval of product supply arrangements that have recognized economic benefits carries with it approval of any ancillary restraints that are reasonably necessary or appropriate to induce the parties to make these agreements and carry them out.[45] The restrictive provisions to which the Director objects are nothing more than ancillary restraints that ''afford a fair protection to the interests of the party in favour of whom [they are] given...'' They are necessary to the existence of the supply agreements, and they are not contrary to the public interest.

(a) Restrictions on Quantities Supplied

The Director condemns clauses limiting the product liftings of competitors to existing demands plus normal growth in a region as a form of market-sharing agreement.[46] Perhaps, such a clause would limit the market share of a marketer who had no alternative source of supply and who could not build a refinery in the region. But the clause does not foreclose these opportunities, which pre-existed the agreement and which continue as before, and therefore the clause does nothing to reduce pre-existing competition or potential competition. Indeed, the supply agreement increases competition in the marketing sector without in any way affecting the pre-existing possibility of new entry. Moreover, such a clause does no more than afford a fair protection to the refiner who imposes it. Without such a limitation, the product liftings of the competitor could grow without limit and the supplier could not be sure of enough capacity to supply his own distribution network. Without the predictability provided by such limitations, a refiner could not plan the efficient expansion of his own refinery capacity, nor could he make rational plans (in the face of declining demand) about possible refinery closings. For these reasons alone, no refiner-marketer could even consider offering an absolutely unlimited supply agreement.[47]

Moreover, unlimited supply agreements with competitors could, under some circumstances, enable a competitor to make substantial inroads on the supplying refiner's sales through its other distribution channels. This will inevitably be of concern to a refiner's marketing department, which is normally responsible for sales through other distribution channels. After hearing the views of the marketing department, top management must of necessity consider the possibility that unlimited sales to a competitor could lead to losses in the refiner's other sales (due to expanded sales by the competitor) that exceed his profits from supporting these sales through a supply agreement. In this as in other areas, the company must decide whether it maximizes its profits by selling the limited amount of product it has through its own outlets or by selling to others who will market through other channels. A decision not to supply a competitor in preference to one's own outlets is hardly anti-competitive in such a context. No refiner can reasonably be expected to engage in transactions that support his competitors to the detriment to his own interests. Once again, quantity limitations may be necessary.

(b) Reciprocity Requirements

The Director similarly objects to reciprocal supply agreements under which one refiner's product liftings from another in one area are restricted to approximately the quantity lifted by the second refiner from the first in another area.[48] Such reciprocity clauses are merely another way to limit quantities obtained under supply agreements and are perfectly acceptable as reasonable ancillary restraints for the same reasons that other quantity restrictions in supply agreements are acceptable.[49]

(c) Territorial Restrictions

The Director also attacks ''territorial exclusivity'' clauses as a form of market sharing.[50] Texaco Canada's own experience sheds no light on the purpose or effect of such clauses. Texaco Canada has no knowledge of such clauses. However, economic considerations suggest that territorial restriction on the resale of exchanged product may be in the individual interest of some refiners and provide the fair protection essential to the existence of a transaction.

Consider a refiner who has spare refinery capacity in one region and a distribution system subject to vigorous competition in another. It would be advisable for such a refiner to sell some of his excess capacity at a low price in the first region in order to take full advantage of economies of scale and increase the efficiency of refinery operations. However, if the product he sells at a low price in one market undercuts his marketing system in an adjacent market, the sale may no longer produce a net gain. In such a situation, a territorial restriction may be the only alternative to a flat refusal to deal and therefore would be consistent with the refiner's individual interests and with the social interest in efficiency, while still permitting the transaction to go forward.

Considered from another standpoint, a territorial restriction may be nothing more than a way of limiting product demand under a supply agreement and making it predictable. A refiner might be able to predict the product demands of a customer in one area, but not be able to calculate the additional demand that might result if that marketer were to undertake expansion into a different area. In that case, a territorial restriction is nothing more than a kind of quantity restriction and is no more objectionable than one.

(d) Customer Restrictions

Finally, the Director objects to clauses that restrict the right of the buyer to resell the product obtained under a supply agreement to other retail marketers.[51] Texaco Canada knows of no such clauses. Such clauses could be viewed as an indirect refusal to deal with certain potential customers, in which case the Director's objection reduces to a charge of refusal to deal. Allegations of anti-competitive refusals to deal are discussed below.

Clauses of this kind, however, may amount to nothing more than an indirect quantity restriction in a supply agreement. A refiner contemplating a supply agreement with a marketer has a reasonable basis for predicting product demand under that agreement: the marketer's historical product needs and an allowance for normal demand growth. If, however, the marketer takes product under that agreement and wholesales it to other marketers, actual product liftings under the agreement may bear no relation to the marketer's historical product needs and normal growth and could substantially exceed anticipated liftings. The entire basis of the contractual relationship has been altered by the entry of the marketer into what amounts to a new line of business. The refiner could avoid such unanticipated demands by straight quantity restrictions, by restrictions to historical demand plus normal growth or by restrictions on resale. Any one of these restrictions would accomplish more or less the same result, though the differences among them may make one or another preferable for both parties in a given transaction. Like the other forms of quantity restrictions, resale restrictions are nothing more than reasonable ancillary restraints.

(e) Conclusion

The clauses to which the Director objects undoubtedly restrict competition in the sense that the same transactions without the clauses would be less restrictive of competition. This is, however, not an acceptable basis on which to evaluate the clauses. A proper evaluation tests whether these clauses are reasonably ancillary to a lawful and beneficial transaction and serve merely to "afford a fair protection to the interests of the party in favour of whom [they are given]," without interfering with the public interest. By this standard, the clauses at issue are wholly consistent with sound competition policy.

(v) Selective Supply

In addition to alleging that the terms of actual product transactions are anti-competitive, the Director also alleges that it is sometimes anti-competitive for refiners to decline to enter into product transactions. These allegations take two forms. First, the Director alleges that refiners sometimes refused to enter into product exchanges with potential entrants into refining in order to deter them from entering. Second, the Director alleges simple anti-competitive refusals to deal with price competitive gasoline marketers. Neither set of allegations makes out a convincing case of anti-competitive conduct.

(a) Potential Entrants

The Director contends that existing refiners within a region used offers to exchange product or refusals to exchange product to control new entrants and deter potential entry. The Director's theory is that

> [i]f the identity of the potential entrant was such that the probability of entry was high, then the existing refiners offered product in order to delay

> entry into the refining sector. On the other hand, if the potential for entry was low, then the existing refiners generally refused to agree to a product exchange.[52]

The first sentence simply says that a potential entrant into refining in a region would probably be offered product if its entry was highly likely. This is both unremarkable and socially desirable. As repeatedly noted, the Director concedes the undesirability of excess refinery capacity and the legitimacy of transactions that serve to avoid excess capacity. To allege that refiners entered into transactions that might avoid the development of excess capacity is to allege that the refiners behaved in a socially desirable manner.[53]

The second sentence appears to say no more than that refiners would not exchange product with companies unlikely to become refiners, which is not entirely surprising. One can only exchange refined product with another firm engaged in refining. And one cannot be expected to commit to buy product from a new refinery if no additional supply is needed. Matters would be different if the Director alleged that refiners not only refused to enter into exchanges, but also refused to supply product if requested or to buy it if a refinery were built and the would-be purchaser needed extra capacity, but the Director acknowledges, albeit only in a footnote, that ''a product sale might still be made.''[54]

The Director is left, then, only with one related contention: firms may have been deterred from entering refining because they could not get existing refiners to promise to take some of their output and that when a firm was nevertheless actually on the verge of entering refining, existing refiners did enter into various transactions with it to make it unnecessary for such a firm to build a refinery:

> [T]he need for potential new entrants to build large-scale refineries, in conjunction with the refiner's strategy of refusing to enter into supply agreements with potential new entrants who were not majors, would have acted as a barrier to entry into refining for this class of firm.[55]

This analysis is flawed in two ways. First, it assumes an unreasonable level of naïveté on the part of potential entrants, who should have realized that they could obtain supplies without building in an area simply by coming up with firmer plans to enter the market. Second, the barrier to entry complained of here is not a product of anti-competitive intent, but rather of the existing refiners' recognition of economies of scale and the need to limit refining capacity, as well as the fact that no one is going to commit himself to buy products he does not need simply to help a competitor enter a market. It is thus perfectly rational for individual refiners to refuse to enter into a prospective product exchange with a potential refiner if that exchange would promote the building of socially wasteful refining capacity.[56]

The charge, then, is that refiners sought to avoid excess refining capacity and entered into exchanges only when they needed to and only with companies that had something to exchange. There is nothing anti-competitive in that.

(b) Independent Marketers

The Director's allegation concerning marketers unlikely to become refiners is, in essence, that the major refiners refused to supply independent marketers constituting the ''competitive element in the market'' in order to preserve the ''established majors' price levels.''[57] The growth of what the Director refers to as the ''competitive element in the market''[58] over the

years, as is shown in Texaco Canada's response to the Director's allegations concerning the marketing sector, suggests either that the Director has misinterpreted his voluminous evidence or else that the major refiners were remarkably unsuccessful in achieving this purpose. Texaco Canada believes that the Director has misinterpreted his evidence. The issue of supply to independent marketers is dealt with more fully in the company's marketing evidence.

D. Conclusion

The Director's allegations that product exchanges, supply agreements and similar transactions have anti-competitive purposes and effects are wholly without foundation. These transactions, necessitated by the technology and economics of refining and distribution, provide substantial benefits to Canadian consumers. The Director, recognizing these benefits, should have gone no further. His attempts to suggest that the transactions might have gone forward in ways that, in his view, would have been preferable, are wrong as a matter of fact and rest on a misunderstanding of the proper role of competition policy. Limiting, or otherwise regulating, the freedom of refiners to enter into beneficial exchanges can only raise the cost of providing petroleum products to the Canadian public while reducing, rather than increasing, the competitiveness of petroleum markets.

NOTES TO PART I

1. The Canadian refining industry lagged behind that of the United States in conversion from thermal cracking to catalytic cracking, a process developed in 1936. Canadian development was retarded by the apparent Allied decision to allocate major responsibility for high octane gasoline to the United States during the war. D. Campbell, *The Impact of Seller Concentration on Market Performance — A Comparative Study of the Canadian and American Petroleum Refining Industries*, at pp. 201-202 (unpublished Ph.D. dissertation, Cornell University, 1966).
2. Nominal rated capacity is the usual measure of refinery capacity. It is calculated on the basis of the maximum daily throughput demonstrated by actual performance over a prolonged period, adjusted for the expected number of days which the plant will be off stream for light repairs, clean outs, inspection, tests and repairs. If the actual shut down time is less than expected in a given year, the plant can operate at levels which exceed the nominal capacity.
3. There are also economies in transportation and storage that help explain this phenomenon. While it might theoretically be possible to build even larger refineries than those common in Canada and to operate those larger refineries at even lower unit costs, transportation and other costs may begin increasing before refinery scale economies are exhausted. Moreover, as discussed below, the efficiency of a refinery also depends on its operating level.
4. The classic study of this phenomenon, based on analysis of hypothetical refineries of varying scale that might have been constructed along the Gulf Coast in 1950, is reported in J. McLean and R. Haigh, *The Growth of Integrated Oil Companies* at pp. 557-558 (1954).
5. Cost curves demonstrating this effect can be found in J. McLean and R. Haigh, *supra*, at p. 566, Exhibit XX-5.
6. See A. Marshall, *Principles of Economics* at pp. 321-323 (8th ed. 1961).
7. R. Bertrand, *The State of Competition in the Canadian Petroleum Industry* (1981). The Director's allegations concerning the refining sector appear primarily in Volume V.
8. The Director documents these transactions at length in Volume V.
9. The precise minimum capacity depends on the crude type being processed and the product slate being produced.
10. The spot market in Canada is too small and thin to provide an effective outlet for production.
11. Where transportation costs would be particularly high, a transaction, rather than simply reducing costs, is essential to allow the purchasing refiner to meet its customers' needs.
12. Sometimes considered as a form of exchange is the throughput agreement, under which one company in effect rents another's storage capacity. One company simply delivers its products to another's facilities at one time and picks up the same product later, paying a charge for the service. Texaco Canada does not classify throughput agreements as product exchanges, because no product is really exchanged.

13. Whatever the scale of the refinery, it would sometimes be operated below its efficient level of capacity utilization, because changes in market demand, which are continuous, will not correspond to changes in refinery capacity, which come in ''lumps''. A small refinery, below efficient scale, would more quickly come to be used at its efficient level of capacity utilization than a larger refinery.

14. The Director appears to acknowledge that Canadian refiners sought only to avoid ''*unrequired* refinery capacity and *excessive* refinery expansion.'' Vol. 5, p. 105 (emphasis added).

15. In principle, it would be possible for a refiner to construct a refinery in each area in which it wished to market products. This would be economically unsound for the refiner if, as is typically the case, his product needs would not justify an economically efficient refinery. Relying on construction of new refineries in order to support new competitors in marketing would inevitably lead to excess industry refining capacity and economic waste. Historically, refiners have entered new marketing areas by relying on product obtained from other refiners and then, if marketing develops sufficiently, constructing a refinery later.

16. The Director tries to discount the importance of this factor by arguing that refiners who enter a new area by use of supplies obtained under a supply agreement are less aggressive than they otherwise would be. The factual support for this contention is nearly non-existent; although a new entrant obviously cannot try to obtain sales for more than the amount he is able to supply, the evidence Texaco Canada will be supplying will demonstrate that Texaco Canada (and the other major refiner-marketers) have always competed aggressively all across Canada. In any event, the Director cannot discount the importance of new entry, whether he calls it aggressive or not, and exchanges clearly permit entry at the marketing level that would not otherwise occur.

17. In summarizing what these materials show, Texaco Canada is omitting consideration of short term transactions.

18. Vol. V, p. 4.

19. Vol. V, p. 47.

20. Vol. V, pp. 50-53.

21. Vol. V, p. 47.

22. Vol. V, p. 4. On occasion, the Director refers to agreements among refiners as serving ''to rationalize the industry . . .'' Vol. V, pp. 2, 60. It is impossible to ascertain precisely what the Director means by the term ''rationalize.'' It is reasonable to suppose that ''rationalization'' refers to activities serving to eliminate waste and inefficiency. Product exchanges and similar transactions serve this purpose. The Director's references to ''rationalization'' may therefore indicate further recognition of the economic advantages of these transactions.

23. Vol. V, p. 2.

24. See, e.g., Vol. V, p. 42.

25. Vol. V, pp. 49-53.
26. Vol. V, pp. 53-55.
27. See, e.g., Vol. V, p. 4 (arguing that certain kinds of transactions were anti-competitive in that they did not promote competition to the extent that alternative transactions would have).
28. Vol. V, p. 42.
29. Vol. V, pp. 47-48, 55-58.
30. As the Director apparently concedes. See Vol. V, p. 4.
31. Vol. V, p. 4.
32. See, e.g., Vol. V, p. 44.
33. Vol. V, p. 49.
34. Vol. V, p. 54.
35. The evidence presented, Vol. V, pp. 54-55, concerns three incidents. One concerns Imperial and Shell, and the quotations from Shell documents make clear that Imperial did not refuse to supply Shell, but only refused to renegotiate an existing purchase/sale agreement on terms Shell preferred. The second concerns Shell and Murphy. The evidence shows that Shell's General Manager — Marketing believed that Murphy should commit additional capital. The Director elsewhere suggests there were other reasons why Shell did not supply Murphy. See Vol. V, pp. 83-84. The quoted evidence regarding the third suggests only that an unidentified individual at Shell thought Shell should try to "eliminate [Texaco's] profitability leverage."
36. Vol. V, p. 55.
37. *Id.*
38. *Id.*
39. See Vol. V, p. 2.
40. The Director nowhere provides evidence indicating whether such clauses, implicit or explicit, are common features of such transactions, or whether they are relatively rare. Texaco Canada's own experience suggests that certain of these clauses are relatively common, while others are relatively rare.
41. Vol. V, pp. 3, 58-60.
42. Vol. V, p. 4.
43. A non-ancillary restraint is a transaction in which the primary purpose is to eliminate or restrict competition as such. The Director recognizes, as he must, that product transactions among refiners have purposes other than the restriction or elimination of competition. Restrictive clauses in such contracts, therefore, are ancillary.
44. *Nordenfelt v. Maxim Nordenfelt Guns & Ammunition Co., Ltd.*, [1894] App. Cas. 535.
45. The appropriate analysis parallels that for joint ventures. Joint ventures frequently offer efficiency benefits and introduce new entrants into a line of business. The relationship creates certain risks for the joint venturers, however, and it may often be necessary for them to agree to some restrictions on competition between them and the joint venture in

order to justify its creation. If the economic benefits of the joint venture are to be obtained, reasonable ancillary restraints on competition between the joint venture and its creators must be accepted.

46. Vol. V, p. 58.

47. As an alternative to a supply agreement with limitations, the refiner could offer a simple sale of a fixed quantity of product over a period of time. There is no indication that the Director finds ordinary sales of fixed quantities of product to be anti-competitive, yet such an arrangement would restrict the buyer's ability to compete at least as much as would a limited supply agreement. Moreover, such a sale would, in most instances, be less attractive to the buyer than a limited supply agreement, because the buyer would bear the risk that his product requirements would not grow as much as anticipated.

48. Vol. V, p. 3.

49. The discussion above of the advantages of mutual exchanges suggests additional reasons why reciprocal arrangements are economically attractive to the participants. That discussion makes clear that reciprocal arrangements are desirable for reasons having nothing to do with restrictions on competition. It therefore provides additional grounds for concluding that reciprocal product restrictions do not offend competition policy.

50. Vol. V, p. 60. Interestingly, the only example the Director cites of territorial division in a domestic product supply arrangement is the Gulf-Husky asphalt agreement discussed above. Texaco Canada does not itself use such clauses, and the company cannot say whether other companies in the industry commonly use them.

51. See, e.g., Vol. V, pp. 59-60, 96-104.

52. Vol. V, p. 69.

53. The allegation, it should be noted, is inconsistent with the Director's allegation that refiners refused to enter into product transactions in order to induce others to pay the "entry fee" of investment in refinery facilities. Inconsistencies like this permit the Director to characterize the behaviour of refiners as anti-competitive regardless of whether they do or do not offer product transactions in any given situation. In short, the Director feels free to conclude that the refiners behaved anti-competitively regardless of what they actually did.

54. Vol. V, p. 69 n.5.

55. Vol. V, p. 73.

56. Texaco Canada doubts the efficacy of such alleged manipulations in influencing the behaviour of potential entrants. The Director quotes an Imperial document he characterizes as showing that "Imperial considered supplying Texaco in order to delay Texaco's entry into refining in the Atlantic provinces." Vol. V, p. 70. Texaco Canada, of course, cannot explain the circumstances which led J. W. Flanagan of Imperial to write on January 29, 1962, the statement the Director quotes. The company can only note that it broke ground for its Halifax refinery in October, 1962, and opened the refinery, after a normal construction period, on January 1, 1964. If Imperial sought to delay Texaco Canada's entry into refining in the Atlantic provinces, it failed.

57. Vol. V, p. 80.

58. In using this term to refer to certain independent marketers only, the Director ignores competition stemming from other market elements, including the major refiners. As demonstrated in Texaco Canada's marketing response, such competition was a continuing force in retail markets for petroleum products. Nevertheless, Texaco Canada here adopts the Director's frame of reference for purposes of convenience.

PART II

THE DEVELOPMENT OF PETROLEUM MARKETING IN CANADA

As the Preface to this Submission indicates, the written allegations contained in Volumes I and VI of the Green Books are based largely on myth. The Director's allegations concerning Texaco Canada's marketing of gasoline and other petroleum products cannot survive any close examination once the facts about the present and past practices of Texaco Canada and the other refiner-marketers are made clear.

In this part of the Submission, Texaco Canada provides a brief summary of the historical development of its marketing system and a summary of the history of petroleum marketing practices generally in Canada. Part III of the Submission will focus on the Green Book allegations themselves and will analyze the factual, economic and legal issues relating directly to them. Part IV will provide more detail about Texaco Canada's current marketing system for all petroleum products.

I. The Early Years of Petroleum Marketing in Canada and the Origins of Texaco Canada

Although petroleum was produced, refined, and marketed in Canada as early as 1857, the modern era of Canadian petroleum marketing began in the 1920's, when several companies, including The Canadian Oil Company and the British American Oil Company, expanded their existing refining capacity and used it to supply growing marketing networks, actively competing with the previously established network of the Imperial Oil Company. The emergence of the automobile made gasoline the most significant product in these networks. Although other companies also constructed refineries, a substantial proportion of the gasoline sold by companies other than Imperial continued to come from abroad or from Imperial's refineries.

Competing marketing networks continued to grow throughout the 1920's. An Ontario government report issued in 1926 indicated that 98 distributors operated in the province, only three of which were refiners. The four largest distributors without refining capacity imported significant quantities of gasoline.[1] British American, which in 1927 and 1928 sold about 16 percent of the gasoline consumed in Canada, had only 5 percent of the refining capacity, obtaining the rest of its gasoline either from imports or from Imperial.[2]

The predecessors of Texaco Canada provide early examples of how competition developed in petroleum marketing and spread upstream into refining. In 1873, John McColl and William Anderson formed a partnership to go into the lubricating oil business. Renamed McColl Brothers and Company in 1876, the company specialized in selling oils, greases, paints and varnishes to the railways which were then under construction — Grand Trunk Michigan Central and, later, the Canadian Pacific Railroad. As the railways moved westward, McColl Brothers built plants at Winnipeg, Regina, Calgary and Vancouver to blend or manufacture the products sold by the company. Plants were also built in the East — at Toronto, Montreal and Halifax — so that by the turn of the century, McColl Brothers and Company was well established in this part of the petroleum business from coast to coast in Canada.

As use of the automobile increased, the sale of automotive greases and lubricants became an important part of McColl Brothers' business. It was logical to use the existing marketing network to supply gasoline to motorists. Therefore, McColl Brothers began importing gasoline

from the United States in 1916. By 1920, the company, reorganized as McColl Brothers Limited, was firmly established as a gasoline marketer in Ontario and Quebec. A new refinery was built in Toronto and began operations in 1925. With this new refinery in operation, McColl Brothers began to broaden its gasoline marketing activities beyond Ontario and Quebec, entering the Winnipeg market in 1927, distributing gasoline imported from the United States. Meanwhile, its lubricants and specialty type petroleum products were marketed across Canada under the Red Indian brand name, which continued to identify McColl Brothers (and later McColl-Frontenac) products and service stations for many years to follow. Thus, from the very early days of its gasoline marketing, McColl Brothers operated as an integrated refiner-marketer.

Another predecessor of Texaco Canada, Frontenac Oil Refineries, was formed as a refiner-marketer in 1925, mainly through the reorganization of an existing group of companies engaged in both refining and marketing. The new company's refining capacity exceeded its marketing capacity, and it soon acquired several distributors to provide outlets for its products. By late 1927, Frontenac operated a refinery in Montreal East, and marketed effectively in Quebec and the Ottawa Valley. Finally, in 1927, McColl Brothers and Frontenac merged, combining their complementary refining, marketing, and transportation facilities. The newly formed company, McColl-Frontenac Oil Company Limited, began operations early in 1928.

During the early to mid-1930's, it became apparent to McColl-Frontenac's directors that association with a larger, international organization was desirable and necessary to provide the financial resources needed for continued expansion. Accordingly, The Texas Company (later to become Texaco Inc.), a large U.S. organization having worldwide petroleum operations and interests, was encouraged to invest in the Canadian company by McColl-Frontenac's directors. By early 1938, The Texas Company had acquired approximately 35 percent of the outstanding common shares of McColl-Frontenac.

Prior to 1938, McColl-Frontenac's marketing area extended from the Maritimes to Manitoba, with limited representation in the other Western provinces. In 1939, McColl-Frontenac acquired The Texas Company of Canada Limited, a wholly owned subsidiary of The Texas Company, and with it a distribution network which the former company had operated since 1928 in Saskatchewan, Alberta and eastern British Columbia. McColl-Frontenac's area of marketing operations was thereby extended westward to the eastern portion of British Columbia. In 1940, the company further expanded its operations with the acquisition of a majority interest in B.C. Fuel Co. Ltd., thus making the company a coast to coast operation.

During these early years, innovative marketers throughout North America attempted to establish appropriate and efficient systems for meeting rapidly growing gasoline demands. At the turn of the century, gasoline (like kerosene) was primarily sold through food stores, general stores, and other outlets. With the development of the gasoline pump and the increasing use of the automobile, other means of gasoline distribution became predominant. Automobile garages became important outlets in all areas, for the early automobiles required frequent servicing. In rural areas, country general stores continued to sell gasoline and in urban areas, curbside pumps were installed to offer rapid fill up services.[3]

Increased demand for gasoline soon made possible the development of specialized facilities where gasoline became the primary product for sale. Thus, the concept of the

gasoline service station emerged in the United States some time after 1907. Imperial Oil opened the first one in Canada in 1908.[4] A drive-in facility, the service station sold gasoline and motor oil and provided repair services. It was convenient for the motorist, who frequently needed both gasoline and repairs; because it could accommodate larger tanks and thus larger deliveries, it was convenient for the supplier. The earliest service stations were opened and operated by refiners.

Sale of gasoline under widely used trade names benefited these early service stations, the refiners, and the motoring public.[5] In the early days of gasoline marketing, the sale of contaminated and inferior gasoline caused fears of possible damage to automobiles. Given the relatively high cost of the automobile, and the relatively low cost of gasoline, motorists developed a strong preference for gasoline sellers who offered assurance of quality. Use of a refiner's trade name provided the motorist with this assurance and identified a reliable company, responsible for the quality of the product. Moreover, the motorist could logically assume that the owner of the trade name would have an incentive to assure quality since a reputation for poor quality gasoline could reduce sales at a large number of outlets.

Both the service station and the curbside pump were established features of gasoline marketing in Ontario in the 1920's. Major distributors sold through their own outlets and they often supplied pumps to curbside operators in exchange for exclusive dealing arrangements.[6]

A substantial increase in the number of full service gasoline outlets in Canada began in 1928[7] and this growth accelerated in 1930, when the tariff on imported gasoline was increased. This tariff increase was followed by an increase in Canadian refining capacity of nearly 26 percent in two years and a substantial increase in the number of refineries.[8] Overcapacity resulted, and one consequence was a rapid growth in the number of retail outlets as refiners aggressively sought to find a market for their products. A survey conducted by the Tariff Board indicates a 24 percent increase in the number of stations owned and leased by 22 companies between 1930 and 1934.[9] See Table II-1.

TABLE II-1.

Service Stations Erected by Major Oil Companies, Canada 1930-1934

	Total in 1930	Total in 1934 (Dec. 31)	Increase 1930-1934	Percentage Change
Imperial (a)	630	668	38	6
B.A.	290	337	47	16
McColl-Frontenac	204	256	52	25
Shell	99	156	57	58
Canadian Oil Companies	88	120	32	36
Five refiners above	1,311	1,537	226	17
Five refiners minus Imperial	681	869	188	28
Six marketers (b)	225	349	94	37
Others (11 companies)	256	359	113	40
Total	1,822	2,255	443	24

(a) Includes data for the Domestic Storage and Forwarding Co. which was purchased by Imperial during the period.

(b) Crown Dominion Oil, Howe Oil Distributors, Irving Oil Co., Prairie Cities Oil Co., Supertest Petroleum Corp., Thayers Ltd.

Source: D. Campbell, *The Impact of Seller Concentration on Market Performance:* A Comparative Study of the Canadian and American Petroleum Refining and Marketing Industries (unpublished Ph.D. thesis, Cornell University, 1966).

The Tariff Board's 1934 data also show that a variety of contractual arrangements for the ownership and operation of stations had developed by the 1930's. Companies both owned and leased stations, and they operated some directly while leasing others to retailers. Of the company owned or leased stations in operation, 74 percent were leased to retailers and 25 percent were operated by the company.[10]

By 1941, the number of service stations in Canada reached 10,130.[11] The war, however, brought shortages of both manpower and supplies, and the trend was reversed. The number of outlets dwindled and by the 1951 census totalled only 8,394.

II. Expansion of Full Service Networks: Gasoline Marketing from the End of World War II to 1960

Following World War II, there were huge increases in the sales and use of automobiles, and in the number and size of service facilities. In 1951, there were about 2,800,000 cars in Canada, a ratio of one vehicle for every five Canadians. Between 1951 and 1961, the number of registered vehicles increased by 94 percent. Sales of gasoline increased by 105 percent. The number of service stations increased by 122 percent. See Table II-2.[12] Most of these stations were part of branded networks affiliated with major refiners. Such networks developed to satisfy motorists' needs as they existed at the time.

TABLE II-2.

Canada
Population and Automotive Trends
1941-1981

	1941	1951	Percent Increase (Decrease) 41-51	1961	Percent Increase (Decrease) 51-61	1971	Percent Increase (Decrease) 61-71	1981	Percent Increase (Decrease) 71-81	Source
Population	11,506,655	14,009,429	21.7	18,238,247	30.2	21,568,311	18.2	24,498,900	13.6	1941-1971: Canada Year Books 1981: Statistics Canada Catalogue 11-003
Vehicle registrations	1,554,866	2,820,057	81.3	5,463,112	93.7	8,781,687	60.7	13,351,009	52.0	1941-1971: Canada Year Books
Canadians per registered vehicle	7.4	5		3.3		2.5		1.8		1981: Statistics Canada Catalogue 53-219
Number of service stations	10,130	8,394	(17.1)	18,623	121.8					Canada Year Books
Total number of retail gasoline outlets[1]	20,000	23,000	15.0	36,000	56.5	35,000	(2.7)	23,000	(34.2)	Texaco Canada Inc. estimates
Net gasoline sales[2] ('000 Gallons)	746,526	1,528,906	104.8	3,140,198	105.3	5,526,201	75.9	6,771,227	22.5	1941-1961: Canada Year Books 1971 and 1981: Statistics Canada Catalogue 53-218
Average gallons per retail gasoline outlet[3]	37,326	66,474	78.1	87,227	31.2	157,891	81.0	294,401	86.5	
Average gallons per vehicle	480	542	12.9	574	5.9	629	9.6	507	(19.4)	
Average vehicles per retail gasoline outlet	78	123	57.7	152	23.5	251	65.1	580	131.0	

Notes:

1. Estimates based on Texaco Canada's marketing department information, various Statistics Canada reports, *Oilweek, National Petroleum News Magazine,* Ethyl Corp.
2. Gross sales less tax exempt sales.
3. This figure does not reflect the average for either service stations or for miscellaneous retail outlets separately.

The automobile of the immediate post-war period differed significantly from the automobile of today. It required more frequent and less sophisticated service. In particular:

- Oil changes and lubrications were recommended every 30 days or 1,000 miles;
- Tune-ups were required or recommended at frequent intervals, usually in spring and fall;
- Seasonal changes of lubricating oils in engines, transmissions, and differentials were necessary;
- Antifreeze, usually not permanent, was installed in the fall and removed in the spring;
- Tube type tires often developed leaks requiring repair and replacement; and
- Components, including tires, brakes, starters, and generators, had shorter life spans than their modern counterparts.

Many of the roads of the day were dirt rather than paved, contributing to the wear and tear on vehicles and the need for frequent service. Moreover, because the modern highway network and the distant suburb were only beginning to appear on the scene, many motorists sought service within a limited area, usually near home or work. Trips to the local service station were frequent and regular.

The full service station became most popular. Most motorists considered gasoline as only a part of the total service package, and the price of that gasoline was secondary to considerations such as dependable and competent mechanical and other services. Many retailers kept extensive service records as a convenience to individual customers, and often a close rapport developed between the motorist and his service station operator. In North America,

> [t]he typical retail gasoline outlet [during this period] was usually a two or three-bay station with facilities to perform routine maintenance service, tune-ups and minor mechanical work on automobiles. It also had space available for maintaining inventory of tires, batteries, cooling system hoses, and other assorted accessories which were most often needed by motorists. The outlet also had gasoline available for sale. In short, the ''typical'' retail gasoline outlet offered to the consuming public what the public wanted and needed.[13]

Profits were generated both from the sale of gasoline and from the other services provided, as the retailer generally fulfilled all of his customers' automotive needs. Competition between retailers, therefore, was often based more on the operator's reputation for competence and product quality than on price. As a result, outlets serving a relatively small number of customers and selling a relatively small volume of gasoline were profitable. In urban areas, a service station could be profitable with a regular customer list of 250 and an annual gasoline volume of about 150,000 gallons. Marketers rapidly expanded into new locations, primarily seeking intersections that were convenient stopping points for many motorists. Because of the forecast of rapidly increasing demand for gasoline and related services, there seemed to be no limit to the possibility of profitable operations. Gasoline only outlets, in contrast, were not generally successful during this period, even when their prices were below those at full service stations.

Most full service stations in this period of expansion were branded stations, that is, outlets operating under a trade name common to a large number of stations. Economic theory offers a simple explanation for this development. The quality of service provided by a service station, or other provider of consumer services, is not necessarily easy to observe. A consumer shopping for good service might expend considerable effort investigating competing sellers; it is much simpler for him to seek an easy signal, like a trade name, that offers reasonable assurance that someone else has done that investigation for him. Thus, a widely used trade name can be a valuable marketing tool. Accordingly, a network of service stations, all carrying a trade name that has come to be associated with high quality image, services and amenities (such as Texaco's Registered Restrooms), will have a competitive advantage over a group of stations providing similar services but operating under a number of different names. Moreover, the value of a trade name can be increased through advertising, as more consumers are informed about the services associated with the brand. Advertising becomes profitable to the extent that it and the information it provides attracts customers. The branded message was well received, and accordingly the branded networks, supported by the advertising and promotional efforts of the refiners and other chain marketers, experienced rapid growth.

Texaco Canada emphasized the security the motoring public could find in a network of service stations providing an assured level of quality of products and services. It actively sought to maintain a high level of quality throughout its network and to bring that level of quality to public attention. Product quality was assured by measures such as rigorous policies concerning the storage, handling, and transport of these products. Service quality was assured through standardized procedures (such as the Circle Service and later Professional Pump Island Service programmes), retailer training in all aspects of service, and certification and inspection under the Registered Rest Room Program. Its well known mottos ''You Can Trust Your Car to the Man Who Wears the Star'' and ''Wherever You Go Trust Texaco'' carried important messages both to Texaco Canada's station operators and to Canadian motorists. Texaco Canada's success in gasoline marketing depended on the truth of those messages; and the company made sure they were true.

While branded full service networks had advantages for refiners in marketing their products,[14] similar networks were created by non-integrated marketers. Examples include the networks of Sun Oil, Standard Oil of British Columbia, Cities Service, and Irving Oil. In each of these cases, however, the marketer backward integrated into refining by 1960.[15] In addition, two companies, Fina and B.P. (Canada), acquired marketing networks and began refining.[16] As a result of these developments, a substantial proportion of all retail outlets were supplied by refiners under their own brand names by the end of the 1960's.[17]

The outlets included within the resulting networks of branded retailers did not all have similar contractual arrangements with their suppliers. Historical practice and market pressures resulted in a wide variety of retail and wholesale arrangements, discussed in detail in Part IV.

As economic conditions changed over the years, there was (and continues to be) considerable shifting among the various types of ownership arrangements. For example, the heavy reliance on company operated stations, which were common in the 1930's, was substantially reduced by the mid-1950's. The Director's 1958 survey of 36,471 retail outlets found that only 1 percent were company operated, with 26 percent operated by lessee retailers, 15 percent financially assisted by the supplier, and 58 percent independently owned

and operated.[18] Moreover, the Director found a decrease in the proportion of outlets independently owned and operated and an increase in the proportion operated by lessees between 1951 and 1958.[19]

While the branded service station was the most popular retail gasoline marketer in this period, it was not the only one. A substantial proportion of the gasoline and other products produced by refineries was not sold through retail outlets. Texaco Canada sold to a number of large consumers, including governments, airlines, railroad companies and manufacturers. Bulk sales of this kind, referred to as commercial accounts, are typically sold under contract for a specified quantity of product over a certain period of time. Various suppliers bid for these contracts.

Other retail establishments sold gasoline. These included service stations not operated under a widely used brand, retail outlets that incidentally sold gasoline, and filling stations not operated to compete on the basis of quality services offered but rather on the basis of price. There was always a segment of the gasoline market that was particularly sensitive to price and so by maintaining retail prices below the level of the prices of branded retailer networks, some marketers could operate profitably with little service and low overhead. Throughout most of this period however, the price differential they offered was not sufficient to attract a large proportion of the motoring public. By the end of the 1950's conditions were beginning to change and the nature of retail gasoline marketing began to change in response.

III. Gasoline Marketing in the 1960's

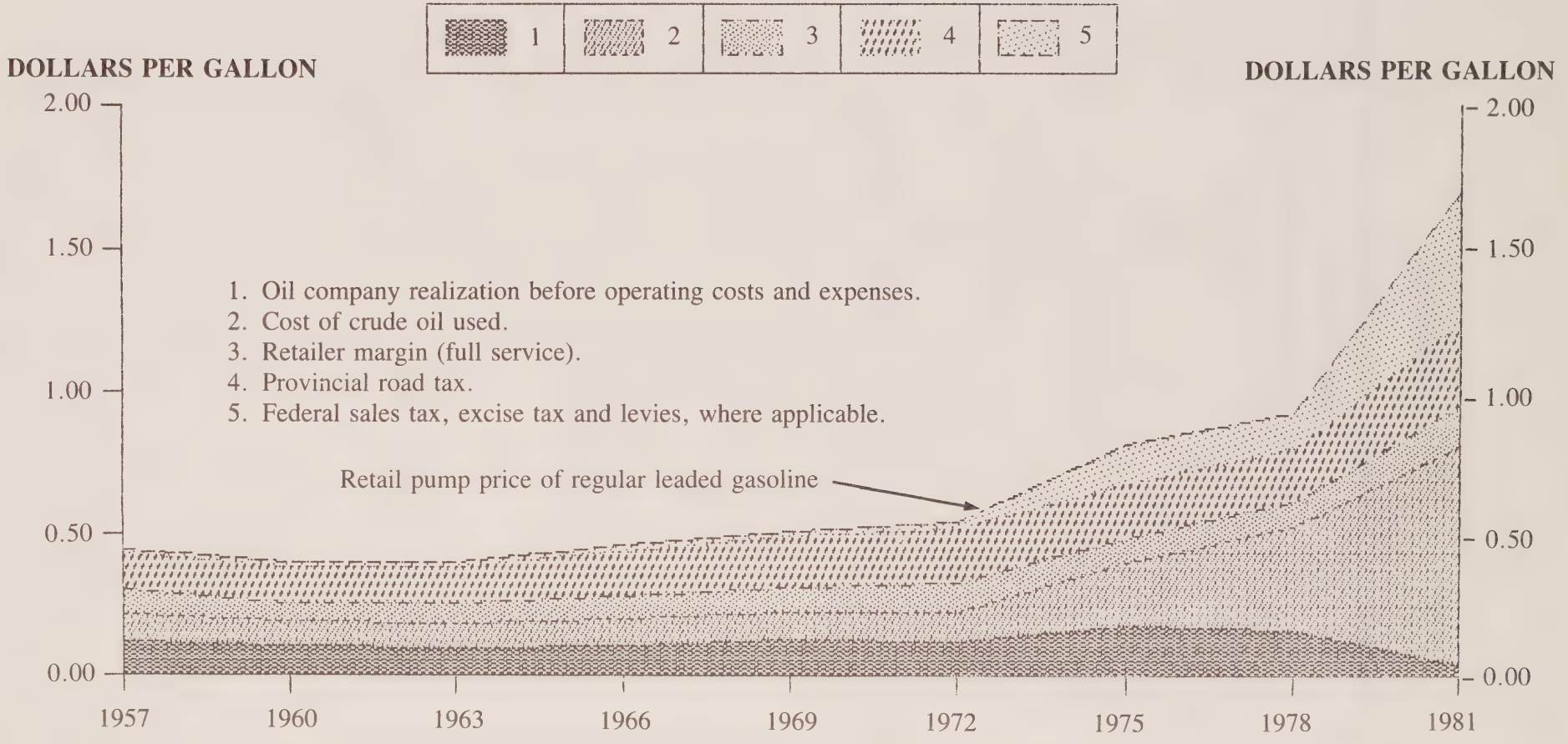
Petroleum marketing in the 1960's responded to two primary sets of external circumstances, one leading to growth and expansion, the other to changes in the way gasoline was marketed. Overall, therefore, the 1960's was a decade of growth and the beginning of change.

The forces stimulating growth in petroleum marketing were increases in the population, economic expansion, the continuing automotive boom, and new sources of supply of crude oil. The population grew by 18.2 percent over the decade, a slower rate of growth than in the previous decade, but still nearly enough to double the population in 40 years. See Table II-2. The economy expanded rapidly, with the average annual rate of growth in the real Gross National Product nearly 6 percent, a rate more than a percentage point higher than the rate in the United States.[20] There were more Canadians than ever before, and they were wealthier.

During the 1950's and 1960's, several international petroleum companies were successful in their exploration efforts for new sources of crude oil. Notable among the discoveries were large fields in the western provinces. The resulting abundant supplies of crude oil helped assure ample, and relatively inexpensive, supplies of refined products for the Canadian market. As Chart II-A indicates, for Toronto, the cost of the crude oil component of regular gasoline actually decreased during the 1960's from the 1957 level, and the pump price of regular gasoline increased little (and sometimes decreased) over the same period, despite substantial increases in taxes. As Table II-3 indicates, when these prices are corrected for the effects of inflation, the pump price of regular gasoline in constant dollars remained below the 1957 price until after 1978, and the cost of the crude oil component remained below its 1957 level until after 1972. The retail price of gasoline, of course, tended to increase over the period, but it increased less than did the general commodity price level. Chart II-B shows that the relative price of gasoline decreased throughout the 1950's and 1960's, increasing only

CHART II-A

Price Components of Regular Gasoline
Toronto



Note: Cost of crude includes royalty payments, taxes & levies, if any.

Sources:

1. Green Book, Vol. II, pg. 74 (1957-1972)
2. Texaco Canada estimates (1973-1981)
3. Energy, Mines & Resources (*Energy Statistics Handbook*), (1975-1981)

TABLE II-3

Retail Pump Price and Cost of Crude Oil Component (Toronto)
Regular Gasoline
cents per gallon in 1957 dollars

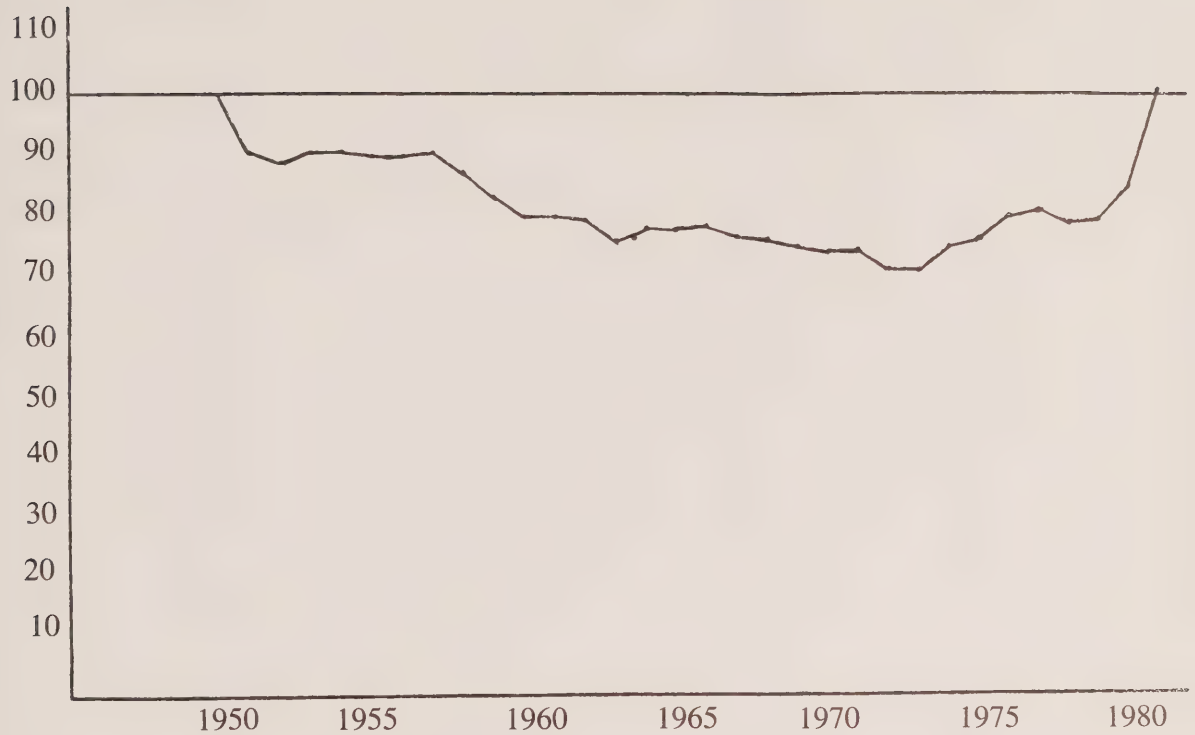
Year	Retail Pump Price	Crude Cost
1957	44.3	9.5
1960	38.0	8.4
1963	36.2	8.3
1966	37.7	7.6
1969	37.5	6.8
1972	34.8	6.5
1975	38.1	10.4
1978	34.6	13.8
1981	47.3	21.4

Sources: (1) See Chart II-A.

(2) Inflation rate based on Reported Gross National Expenditures (Canadian Statistical Review).

CHART II-B

Relative Price of Gasoline, 1950-1981
(1950 = 100)

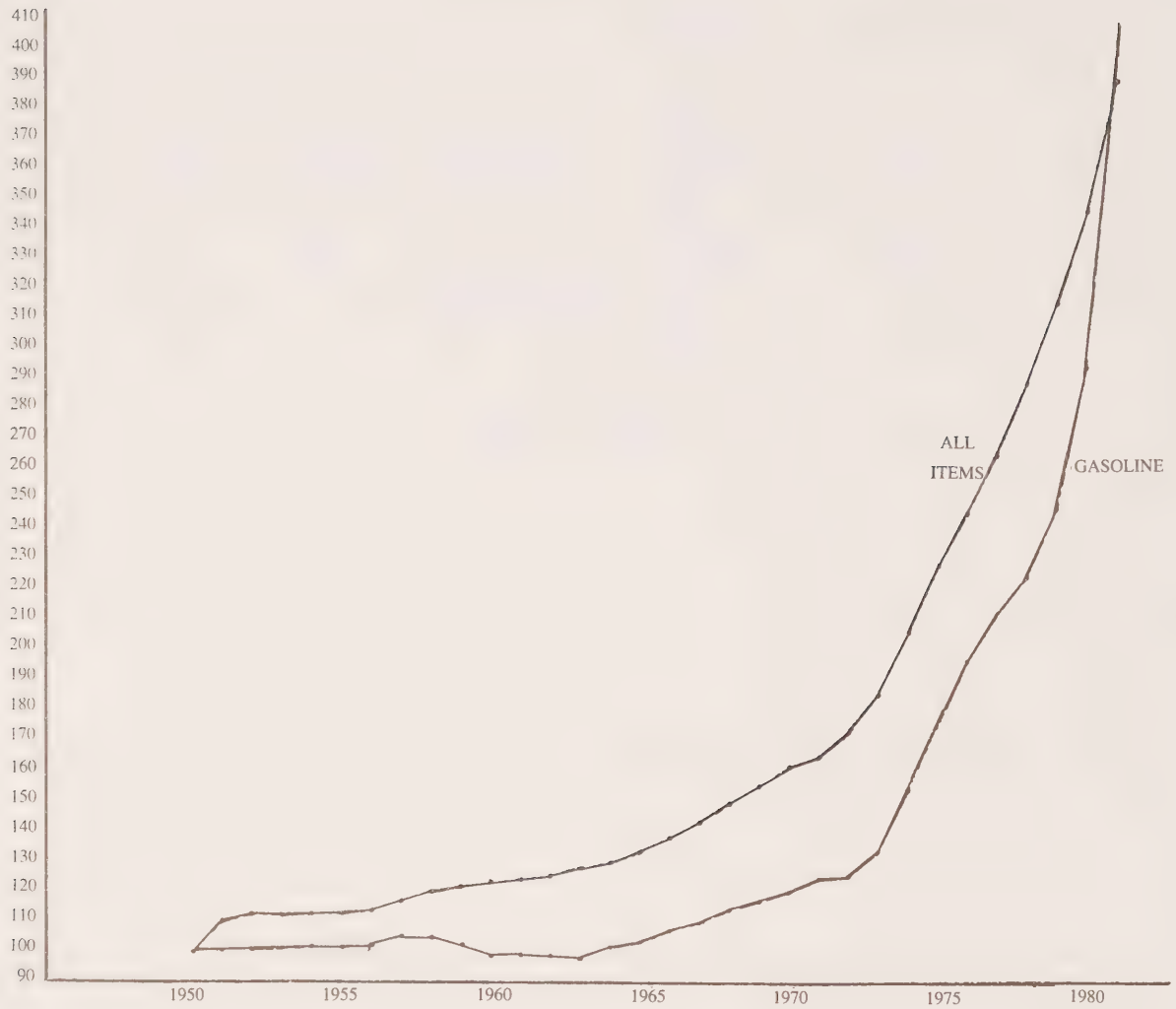


Definition: The relative price of gasoline is the Consumer Price Index for Gasoline divided by the Consumer Price Index for All Items, multiplied by 100.

Source: Calculated from Table II-4.

CHART II-C

Consumer Price Indices, 1950-1981
Gasoline and All Items



Source: Table II-4.

TABLE II-4

Consumer Price Indices, 1950-1981
Gasoline and All Items
(1950 = 100)

Year	Gasoline	All Items
1950	100.0	100.0
1951	100.1	110.6
1952	100.2	113.2
1953	101.5	112.2
1954	102.5	112.9
1955	101.7	113.1
1956	103.1	114.7
1957	107.2	118.4
1958	105.9	121.6
1959	102.7	122.8
1960	99.0	124.5
1961	99.5	125.6
1962	99.3	127.1
1963	98.0	129.3
1964	102.2	131.7
1965	103.7	134.8
1966	108.2	139.9
1967	110.8	144.9
1968	114.7	150.8
1969	117.7	157.6
1970	120.3	162.8
1971	124.5	167.5
1972	125.5	175.5
1973	134.0	188.8
1974	156.3	209.4
1975	176.8	232.0
1976	198.8	249.4
1977	215.9	269.3
1978	228.0	293.5
1979	251.3	320.3
1980	299.0	352.8
1981	406.7	396.8

Source: Statistics Canada, recalculated to change from 1971 = 100 to 1950 = 100.

after the oil shocks of the mid-1970's, and not reaching its 1950 level until 1981. See also Chart II-C, which shows the Consumer Price Indices for Gasoline and for All Items. The underlying data is presented in Table II-4.

Fueled by economic growth, population growth, and inexpensive gasoline, automotive markets continued to boom. Motor vehicle registrations grew by 60.7 percent over the decade, a less startling rate of growth than the 93.7 percent of the previous decade, but still enormous. Canada transformed itself into an automotive society. Modern suburbs were built surrounding major metropolitan areas, and their development assumed that the residents would drive their own automobiles rather than rely on public transportation. The Trans-Canada Highway system and many other major highways and thoroughfares were constructed to accommodate the population's growing preference for long distance travel by automobile. With the automotive boom came increased demand for gasoline.

The petroleum industry grew to meet that demand. Existing refineries were expanded or renovated and new refiners entered the industry, some in western Canada (Royalite, Husky, Pacific 66 and Union Oil), and some in eastern Canada (Fina, B.P., and Golden Eagle).

Retail marketing also expanded rapidly, with varying emphases in different parts of the country. Texaco Canada, for example, directed its refining operations in the West toward the production of more gasoline and less home heating oil because of the importance of natural gas in those home heating markets; it therefore emphasized gasoline in its marketing efforts. In the East, both heating oil and gasoline were emphasized.

The growth in retail marketing meant an expansion[21] in the number of service stations supplied by both old and new market participants. The new highways and suburbs were obvious locations for new service stations, but there were opportunities for expansion and for modernization of facilities in older areas as well. The new stations predominantly responded to the perceived public demand for service and quality. In this period of rapid growth, petroleum companies, rather than individual entrepreneurs, developed most of the new stations. Even though property and construction costs were relatively modest through the end of the 1950's and early 1960's[22], the rapid pace of development left insufficient time to find potential owner-operators with adequate capital. Petroleum companies did not have full freedom in choice of locations. Zoning and other regulations governing site selection frequently resulted in the clustering of service stations in some areas, and their absence in others. In these circumstances, competition for sites was very keen, and not all market participants were able to obtain a sufficient number of quality locations from which to distribute the output of their refineries.

Texaco Canada saw opportunities for growth in gasoline retailing, and in the years 1958 through 1962 built 389 retail outlets. The average cost per outlet was $65,000, including land, construction, and equipment, and the projected annual gasoline volume per outlet was 150,000 gallons. Costs began to increase in the latter half of the 1960's, and the required volume for profitable operation therefore also increased. However, the prospects of continued increases in gasoline consumption and the apparent continued reliance of the motorist on his service station for mechanical maintenance and repairs made these larger volumes seem realistic for the modern full service station.

Despite the continuing automotive boom of the 1960's and the continuing growth of the networks of branded stations, changes in the environment began to affect the style and

economics of gasoline marketing. A number of these changes served to weaken the tie between the motorist and his local service station. Technological changes in automobiles throughout this period reduced the need for the services traditionally performed by the local service station, while creating a need for more complex repair facilities. With tighter engines, oil changes were needed less frequently; multigrade motor oils eliminated the need for seasonal changes. Lubrication was needed less frequently. All-seasons lubricants for transmissions and differentials eliminated another occasion for regular servicing. Alcohol type antifreeze was replaced by the more permanent, year round glycol type, eliminating the annual drain and fill procedure. Tubeless tires lasted longer and went flat far less often, particularly as gravel roads became paved. The motorist's need for these services, and his dependence on his regular service station to perform them, declined.

At the same time, the new automobiles sometimes required complex, non-routine repairs not traditionally performed by the local service station. Companies specializing in this kind of repair emerged, in the form of specialty repair shops, department store car care centers, tire and muffler specialists, automatic transmission repair companies, and others. Motorists increasingly turned to these specialized repair institutions rather than to the local service station.[23] Driving patterns also changed with the development of the modern highway network and the distant suburb. These changes made it more likely that motorists would make their regular purchases of gasoline somewhere along the route during a long journey from home to work, rather than at a single regular location, and created opportunities for high volume filling stations along heavily travelled corridors.

In the late 1960's, land and construction costs increased substantially, raising the investment required to open a new outlet (as well as increasing the value of existing retail locations). Together with the declining importance of service as a source of profit, these cost increases, which continued into the 1970's, eventually changed the economics of the service station business. A reasonable return on investment required pumping substantially larger volumes of gasoline than in the past.

Finally, the wave of refinery construction and expansion in the 1950's and early 1960's created excess capacity. A number of refiner-marketers could not sell the petroleum products that they could efficiently manufacture. Supplies of gasoline, therefore, became readily available to other marketers.

These gradual changes, continuing to the present, tended to increase the proportion of price conscious motorists and reduce the profitability of the traditional full service, low volume outlet. From the perspective of 1983, long term trends are clear. From the perspective of the early 1960's, all that was apparent was an increasing number of independent gasoline stations selling high volumes of gasoline at relatively low prices and generally not providing the range of services, and the convenience, of the traditional full service station.

As a result of these changes, it became possible for independent retailers in various locations to increase their share of the gasoline market by selling at prices substantially below those at full service branded outlets. The initial response of the major refiner-marketers was to view the success of independents as a temporary aberration attributable to transitory causes.[24] To avoid long term loss of sales volume from a temporary change in the price structure, the suppliers of the branded full service networks generally responded by lowering prices in a local area as necessary to meet the price competition and avoid the loss of market share. These episodes are commonly referred to as price wars, and they marked the late 1950's and

1960's. Suppliers used a variety of methods, including temporary price reductions, to encourage lower prices so that competition could be met. Sometimes service station operators, who were only partially dependent on the sale of gasoline for their profits, were reluctant to pass their suppliers' price cuts on to their customers. Texaco Canada developed two ways of assisting retailers while assuring that the benefits of lower prices were passed on: the retailer assistance plan and the consignment of gasoline.

A related development was the emergence of a new model of gasoline retailing, pioneered by the Canadian Tire Corporation. Beginning in 1958, Canadian Tire, in Ontario, added modern full serve gasoline stations to its existing general merchandise stores. (Indeed, from the time of Canadian Tire's entry into the retail gasoline market in Ontario, Texaco Canada was, and continues to be, its primary supplier.) What Texaco Canada considers was novel about the Canadian Tire operation was not the association of gasoline retailing with other retailing,[25] but rather the discount coupon scheme Canadian Tire introduced and continues to use. When the motorist buys gasoline (or store merchandise) from Canadian Tire outlets for cash, he receives coupons for some percentage of the purchase price, the coupons redeemable only through the purchase of Canadian Tire merchandise (including gasoline).

By the use of these coupons, Canadian Tire was, in effect, discounting the price of gasoline, so that its prices, net of the discount, were competitive with those of the low price independents. The refiner-marketers, therefore, sometimes reacted to Canadian Tire by lowering their prices.

In addition to lowering prices to meet particularly low priced local competition, a frequent response of the large refiner-marketers during these years was to increase the attractiveness of their existing service offerings. They did this in several ways, including such promotional devices as games of chance, the offering of car washes with the purchase of certain quantities of gasoline, and promotion of their credit cards. Texaco Canada developed its Starburst of Bonuses concept, which offered regular purchasers of gasoline from participating Texaco retailers the opportunity to obtain useful household items without charge or at attractive prices. Texaco Canada also sought to build customer loyalty by offering motorists the convenience of credit cards through its Travel Card programme.[26] Like the Starburst of Bonuses, this programme was extremely successful, as shown by the 12 percent per annum increase in the number of active Travel Card accounts between 1964 and 1974, as well as the substantial proportion of retail sales made through Travel Cards. See Table II-5. In 1972, Texaco Canada offered the further convenience of accepting Chargex (now Visa) cards and began accepting MasterCharge (now MasterCard) in 1973.[27]

TABLE II-5

Texaco Canada
Travel Card Statistics
1964-1982

	1964	1974	Percent Increase (Decrease) per annum	1982	Percent Increase (Decrease) per annum
A. SALES					
Dollars (millions)	$ 41	$ 174	16	$ 461	13
Percentage retail sales sold on Texaco Travel Cards	23	31		33	
B. ACCOUNTS					
Number of Travel Card accounts ('000)	308	1,346	16	1,214	(1)
Number of active accounts ('000)	148	444	12	722	6

By the closing years of the decade, it was apparent that more fundamental changes were necessary if these refiner-marketers were to maintain their market shares in a market which was becoming increasingly segmented. The segment more sensitive to service than to price was still substantial, but the price sensitive segment was significant. It was difficult to sell to both segments through a single marketing approach. Moreover, the traditional full service outlet, providing a full range of services and selling a relatively low volume of gasoline, was encountering economic problems, not only because of the declining need for its services, but also because of the increased cost of the facilities.

By late in the decade, therefore, these companies, which had earlier experimented with some new approaches to marketing, began developing the programmes that would see them through the 1970's.

IV. Gasoline marketing in the 1970's

The primary strategy the refiner-marketers used to sell in an increasingly segmented market was to segment their retailing operations. They developed networks of gasoline stations that lacked the features of the full service stations. In order to identify clearly the different offerings, the networks of stations competing primarily through price were given different trade names (and so are called second brand stations). After early experiments, these stations were introduced beginning about 1970, and they have grown in number and sales volume ever since. Texaco Canada's second brand stations increased from 23 in 1971 to 52 in 1981. See Table II-6. Undoubtedly their success results in part from rising petroleum prices. These price increases caused the price sensitive segment of the market to grow more quickly than would otherwise have been the case.

TABLE II-6

Texaco Canada
Second Brand Statistics

Year	Number
1971	23
1972	27
1973	25
1974	22
1975	20
1976	20 (est.)
1977	20 (est.)
1978	55
1979	68
1980	46
1981	52
Increase in Volume 1971-1981	+140%

The financial planning of the branded network required reassessment. Costs were continuing to increase and economies of scale became even more important. At the same time, demand was falling, both as the result of conservation and because of the development of more fuel efficient automobiles. The refiner-marketers clearly saw these forces at work and realized that they had to consolidate their networks, hoping to leave a smaller number of stations pumping higher volumes.

Texaco Canada, during the five year period 1976 to 1981 reduced the number of branded retail outlets by over 1,300 locations or 30 percent of its total. At the same time, many of the independents were growing at rates consistent with the majors' growth in the 1950's and 1960's. Top Valu, for instance, increased from 17 outlets in 1976 (K. McCrimmon testimony before the R.T.P.C., page 17643) to approximately 80 outlets in 1979 (page 17661), a 370 percent increase. In the years 1977 to 1981, Suny's grew by 54 percent (exhibit M-203) and Canadian Tire, from 1976 to 1981, by 43 percent (exhibit M-308).

The majors also took the lead in offering the low cost advantages of self service to Canadian consumers. Texaco Canada converted approximately 500 locations to self serve between 1972 and 1981.[29]

With these changes came new arrangements between refiner-marketers and retailers. Texaco Canada believes that self serve stations and second brand stations are more effective and profitable when Texaco Canada controls such competitive factors as hours of operation and price.[30] With this need in mind, Texaco Canada developed its contracted retailer agreement, which provides for the operation of stations on a cost plus fixed guarantee basis. Its self serve outlets and second brand stations are operated under these agreements.

In 1978, the Government of Canada entered the retail gasoline market when Petro-Canada acquired a majority interest in Pacific Petroleums Ltd., a relatively small integrated refiner-marketer operating primarily in Western Canada.[31] In 1979, Petro-Canada

acquired full ownership of Pacific, and by the end of the year operated a branded network of 366 retail outlets.[32] These outlets took on the Petro-Canada brand in 1980, supported by a large advertising campaign and aggressive development of Petro-Canada's credit card business.

Petro-Canada's major expansion into retailing, however, occurred in 1981, when it acquired both Petrofina Canada and Merit Oil Company. With these acquisitions, Petro-Canada became Canada's sixth largest marketer of gasoline, with 1,504 stations spread throughout the nation "in every territory and province except Newfoundland."[33] Most recently, Petro-Canada has acquired the refining and marketing arms of BP Canada. By any definition it is a major oil company.

Petro-Canada's marketing strategy to date emphasizes a full service branded network of stations. Like other refiner-marketers with such networks, Petro-Canada relies upon brand identification through advertising and credit cards as an integral component of its retail strategy. It planned to spend $4 million on nationwide advertising in 1982, an increase of 400 percent over the previous year's expenditures.[34] Also like a number of other major refiner-marketers, Petro-Canada has, in a number of locations, priced to meet low price competition, changing its relationship with its retailers where necessary to carry out this strategy.[35] Indeed, as the company's Chairman, Wilbert Hopper, declared recently, "The thing that bothers some people in Ottawa is that we are going to act and behave exactly like a private sector oil company."[36]

EXHIBIT II-I

Number of Retail Outlets By Company 1976-1981

Company	1976	1977	1978	1979	1980	1981	Percent Change 1976-1981
Beaver	44	56	56	62	60	55	+25
BP Canada	1,879	1,741	1,708	1,694	1,655	1,658	−11.8
Caloil	133	123	123	63(b)	88	80	−39.8
Canadian Tire	62	62	64	63	65	72	+16.1
Chevron	N.R.	436	430	429	410	343	—
Federated Co-ops	397	389	406	413	416	404	+ 1.8
Gulf Canada	4,451	4,122	3,746	2,782	2,659	2,765	−37.9
Husky	261	384	375	380	343	326	+24.9
Imperial	5,457	5,123	4,702	4,504	4,373	4,125	−24.4
Independent Gas Stations	109	79	79(c)	154(c)	N.R.	N.R.	—
Mohawk	196	186	216	220	195	257	+31.1
Pacific Petroleums	400	389	373(c)	372(c)	N.R.	N.R.	—
Petro-Canada	N.R.	N.R.	N.R.	N.R.	N.R.	363	—
Petrofina	1,462	1,209	1,116	1,088	1,086	941	−35.6
Pioneer Petroleums	37	37	42	88	35	60	+62.2
Premium Oil	30	23	23	116	154	35	+16.7
Shell	4,555	4,312	3,827(a)	3,541(a)	3,194	3,620	−20.5
Speedway	55	57	43(c)	75(c)	N.R.	N.R.	—
Spur Oil	—	—	—	—	315	137	—
Sunoco	1,105	1,191	1,049	1,001	755	921	−16.7
Tempo Petroleum	N.R.	N.R.	N.R.	N.R.	206	229	—
Texaco	4,444	4,300	3,827	3,541	3,194	3,005	−32.4
Top Valu	16	18	40	63	67	107	+568.8
Turbo	219	212	214	221	214	289	+32.0
Ultramar	610	630(d)	874(d)	877(d)	830	875	+43.4
Canadian Propane	N.R.	114(d)	114(c)(d)	119(c)(d)	N.R.	N.R.	—
TOTAL	25,922	25,193	23,447	21,866	20,314	20,567	−20.3

Sources: Data for 1976 and 1977 are from *Automotive Marketer*, Third Quarter, 1979, at 44. Data for 1978-1981 are from *Automotive Marketer*, June 1981, at 20, except as noted below.

Notes:

(a) The data reported by *Automotive Marketer* in its 1979 and 1981 editions are inconsistent in describing the number of Shell self service outlets in 1978 and 1979. The data appearing in the table are as reported in the 1981 edition, but the 1979 edition reports 3,982 Shell outlets in 1978 and 3,876 outlets in 1979.

(b) The data reported by *Automotive Marketer* in its 1979 and 1981 editions are inconsistent in describing the number of Caloil outlets in 1979. The data appearing in the table are as reported in the 1981 edition, but the 1979 edition reports 160 Caloil outlets in 1979.

(c) These data are from the 1979 edition because no data are reported in 1981.

(d) Described as "Estimates" by *Automotive Marketer*.

EXHIBIT II-II

Number of Self Serve Outlets By Company 1976-1981

Company	1976	1977	1978	1979	1980	1981	Percent Change 1976-1981
Beaver	N.R.	N.R.	—	—	—	4	—
BP Canada	176	185	206	217	220	230	+30.7
Caloil	2	2	2	4	3	2	0
Canadian Tire	39	41	40	49	49	59	+51.3
Chevron Canada	37	41	42	42	50	58	+56.8
Federated Co-op	60	59	70	75	75	96	+60.0
Gulf Canada	178	220	261	321	335	361	+102.8
Husky Oil	22	22	21	24	27	29	+31.8
Imperial Oil	298	313	384	433	478	496	+66.4
Mohawk Oil	18	24	48	62	74	31	+72.2
Pacific Petroleums	61	63	76(a)	78(a)	N.R.	N.R.	—
Petro-Canada	—	—	—	—	—	91	—
Petrofina	32	46	64	91	102	104	+225.0
Pioneer Petroleums	13	13	13	12	9	6	−53.8
Shell Canada	365	451	465	487	520	532	+45.8
Speedway Oil	10	14	21(a)	22(a)	N.R.	N.R.	—
Spur Oil(b)	N.R.	N.R.	N.R.	N.R.	258	10	—
Sunoco	157	136	152	165	179	194	+23.6
Texaco Canada	340	331	414	440	461	493	+45.0
Top Valu Gasmarts	N.R.	N.R.	N.R.	N.R.	2	4	—
Turbo Resources	9	13	13	14	11	3	−66.7
Ultramar	18	11	11	13	15	14	−22.2
TOTAL	1,835	1,985	2,303	2,549	2,868	2,817	53.5

Sources: Data for 1976 and 1977 are from *Automotive Marketer*, Third Quarter, 1979, at 46. Data for 1978-1981 are from *Automotive Marketer*, June 1981, at 24, except as noted below.

Notes:

(a) These data are from the 1979 edition of *Automotive Marketer* because no data are reported in the 1981 edition.

(b) The 1981 edition of *Automotive Marketer* notes that "Spur Oil has sold its Ontario Division to Turbo Resources."

NOTES TO PART II

1. These four distributors were Shell, McColl Brothers, Sun, and Cities Service. "Report of G.T. Clarkson, Esq. on the Prices of Gasoline and Oils Sold to the People of Ontario," Ontario King's Printer, Toronto, 1926, cited in D. Campbell, *The Impact of Seller Concentration on Market Performance: A Comparative Study of the Canadian and American Petroleum Refining and Marketing Industries* (unpublished Ph.D. thesis, Cornell University, 1966) at 36-37. Campbell, a graduate of the University of Toronto, was employed as a research economist with the Department of Manpower, Ottawa, at the time he completed his thesis.
2. Campbell, *supra,* at 36 n.4.
3. Hogarty, *The Origin and Evolution of Gasoline Marketing,* Research Study #022, American Petroleum Institute (1981), at 6-7.
4. Director of Investigation and Research, *Material Collected for Submission to the Restrictive Trade Practices Commission in the Course of an Inquiry under Section 42 of the Combines Investigation Act relating to the Distribution and Sale of Automotive Oils, Greases, Anti-freeze, Additives, Tires, Batteries, Accessories and Related Products,* (Department of Justice, Ottawa, 1960), at 30 [hereinafter cited as Director's 1960 Materials], citing Imperial Oil Limited, *See What Mr. Rolston Started,* Imperial Oil Review (June 1959), at 16-21.
5. Hogarty, *supra,* at 6-7.
6. Campbell, *supra,* at 37.
7. "To meet the needs of the increasing number of motorists on rapidly expanding highway systems, retail outlets have increased in number, size and range of products and services offered. The old 'filling station', which handled only automotive petroleum products, has generally evolved into the modern 'one-stop' service station where, at a single stop, the motorist may obtain tires, batteries, accessories and other products, and service in addition to petroleum products." Director's 1960 Materials, *supra,* at 30-31.
8. Campbell, *supra,* at 44.
9. Tariff Board, *Report,* in Reference No. 84 — Crude Petroleum and Its Derivatives (mimeo. 1936).
10. Calculated from *id.*, ch. 11, Table II. Data is not available concerning stations owned and operated by retailers.
11. This figure represents the number of filling stations reported in the 1941 census. Filling stations are defined as "[r]etail establishments selling mainly gas, oil, parts and accessories, tires and tubes, and also performing service and repairs. The sale of gas and oil must, however, constitute at least 67 percent of the total trade." Director's 1960 Materials, *supra,* App. VII at 451. The figure therefore does not include all establishments selling gasoline at retail. These filling stations, mostly what are referred to in the text as service stations, account for a predominant share of the gasoline sold at retail. According to the 1951 census, these establishments accounted for 62.4 percent of all gasoline sales by retail establishments (by value). *Id.* at 18, Table 5. Nevertheless, filling stations may be only a small proportion of all establishments selling gasoline at

retail. The 1951 census reported 8,394 filling stations, while a survey conducted by the Director indicated that 32,424 establishments sold "brand gasoline and petroleum products" in 1951. *Id.* at 20. Obviously the overwhelming majority of non-filling station outlets sell relatively small amounts of gasoline.

Unfortunately, the census does not report the number of filling stations for years after 1961. It is therefore difficult to determine the number of filling stations, or service stations, the most important element in the system of retail marketing of gasoline, for later years. While estimates of the number of retail gasoline outlets are available for almost the entire period discussed in this part, trends in the number of retail gasoline outlets do not reflect trends in the number of service stations. Recent decades have witnessed the replacement of large numbers of retail gasoline outlets, each selling only a small quantity of gasoline (typically as merely an incidental sideline to some other business), by a smaller number of service stations, each specializing in the sale of gasoline and related products and services. Thus, for some years, decreases in the number of retail gasoline outlets mask increases in the number of service stations.

12. The figures given in Table II-2 for average gallons per retail gasoline outlet should be treated with considerable caution. Because the category of retail gasoline outlets includes both service stations, which sell large volumes of gasoline, and many other kinds of establishments, which typically sell small volumes of gasoline, the average volume per retail outlet does not indicate the volume either of the typical service station, which would be larger by an unknown amount, or of the typical other retail outlet, which would be smaller by an unknown amount. See note 11 *supra*.

13. Dewell, "Gasoline Marketing: A Response to Change" reprinted in Practising Law Institute, *Gasoline Marketing after Decontrol: The Legal Considerations* (1981), at 16.

14. A network of branded retailers may provide an integrated refiner-marketer with a relatively stable market for products, thus allowing both orderly planned expansion of refinery capacity and maintenance of high and stable refinery runs.

15. Sun, which had marketed product produced by its American parent since the 1920's, built a refinery in 1953. Cities Service, like Sun involved in marketing in Ontario since the 1920's, began refining in 1958. It had for a number of years obtained product from Canadian refiners. Irving, a long established retailer in the Maritimes, had imported product before beginning refining in 1960. Campbell, *supra,* at 135-39.

16. Fina acquired at least 420 retail outlets and constructed more before beginning refining in 1955. B.P. Canada acquired 50 outlets and announced plans for a refinery in early 1957. By the time the refinery came on stream in 1960, B.P. had more than 600 outlets. Until that time, it relied on a processing agreement with Texaco Canada for its product. *Id.* at 136-38.

17. Campbell, *supra,* at 123. The precise proportion cannot be determined. However, a 1958 survey by the Director of Investigation and Research showed that only 15.04 percent of 36,471 outlets were supplied by companies that did not have refinery capacity. *Id.* (Calculation based on Director's 1960 Materials, *supra,* at 37, Table 8). Not all those supplied by refiners sold gasoline under the refiner's brand. These outlets, of course, include more than just service stations.

18. Director's 1960 Materials, *supra,* at 43, Table II. The data exclude 2.4 percent of the total outlets surveyed. *Id.* The percentage company operated actually includes a number of stations that are operated on a commission system. Campbell, *supra,* at 124 n. 2.

19. Director's 1960 Materials, *supra,* at 43, Table II. These figures include outlets that are not part of a branded network. Moreover, approximately half of the outlets included are not service stations, but presumably are other types of commercial establishments that incidentally sell gasoline.

20. U.S. Council of Economic Advisors, Report to the President, at 380, Table B-107 (1978).

21. The exact amount of increase cannot be determined because the census did not report the number of filling stations, or service stations, for years after 1961. *See* note 11 *supra.* While, as Table II-2 shows, the estimated number of retail gasoline outlets declined from 1961 to 1971, this decline apparently results from a large increase in the number of service stations, combined with a still larger decrease in the number of miscellaneous retail outlets, representing but a small proportion of the volume of gasoline sold at retail.

22. Until the late 1960's, a service station could be built for well under $100,000, including land, construction, and equipment.

23. These trends, which essentially began in the mid-1960's and continue today, are widely recognized and generally accepted as critical factors in the decline of the full service retail networks operated by major suppliers. *See, e.g.,* Dewell, *supra,* at 18-21; U.S. Dept. of Energy, *The State of Competition in Gasoline Marketing*, at 193-94 (Final Report, January 1981). These trends were clearly recognized by major Canadian oil companies by at least the late 1960's and early 1970's.

24. For example, in any particular location the initial reason for loss of market share might be the entry of a new price oriented marketer who attempted to gain significant volume quickly by selling at a price below what would have to be charged in the long run. In other places, it was thought that the particularly low prices were possible because gasoline was being imported from the United States at a time when the Canadian dollar was at a substantial premium. See Campbell, *supra,* at 162 n. 2.

25. Simpson Sears, for example, also sold gasoline. In the early days of gasoline marketing, general merchandise stores frequently sold gasoline. Moreover, the typical service station can be viewed as an establishment that sells both gasoline and other items.

26. Texaco Canada's predecessor company, McColl-Frontenac, had many years earlier issued authorization cards for credit purchases to its customers. Improved technology helps explain the greater success of the modern credit card program.

27. While statistics are not available, the acceptance of these bank charge cards may help explain the slower rate of growth in number of Travel Card accounts after 1974.

28. The source of these data is the *Automotive Marketer;* the definitions and figures may not be completely consistent with other data sources used in this submission.

29. Tables which were published by *Automotive Marketer* also indicate these trends and are found as Exhibits II-I and II-II. Texaco Canada does not rely on the accuracy of the data in these Exhibits but includes them only as an independent indication of the trends described in this Submission.

30. The traditional full service station, in contrast, is often more efficiently operated by an entrepreneur, because of the extent to which success depends on careful management of a broad range of customer service and on development of customer loyalty.

31. Pacific Petroleums, originally primarily an exploration and producing company, purchased a refinery and approximately 40 retail outlets in British Columbia in 1956. Campbell, *supra,* at 139-40 n. 3. The network of retail outlets expanded under the Pacific 66 brand.

32. Petro-Canada 1979 Annual Report, at 13.

33. Petro-Canada 1981 Annual Report, at 19.

34. Walker, Petrocan Flexes Its Retail Muscle, *Financial Times of Canada,* April 19, 1982. Petro-Canada's 1982 advertising budget will make it one of the 100 largest national advertisers in Canada. *Id.*

35. *Id.*

36. *New York Times*, December 26, 1982, Sec. F at 4.

PART III

TEXACO CANADA'S RESPONSE TO THE DIRECTOR'S ALLEGATIONS CONCERNING THE MARKETING OF GASOLINE IN CANADA

I. An Overview of Consumer Preferences, Marketing Patterns, and Efficiency in the Canadian Retail Gasoline Market

During the years under review, Texaco Canada maintained its business objective of acquiring and holding customers for its petroleum products. The company was a large but not dominant petroleum marketer which constantly strived to increase or hold its market share against competitors, both large and small. A major concern was the identification of the wishes and needs of consumers and the appropriate reaction to the behaviour of competitors.

Companies selling petroleum products in Canada have responded to shifting consumer tastes and preferences by devising new styles and methods of marketing gasoline. During the 1950's and most of the 1960's, the vast majority of consumers preferred to buy their gasoline at a convenient neighbourhood station that offered quality products along with a full range of services. These services included repair facilities, the sale of automotive equipment and parts and the availability of credit. Consumer demand for these services meant that most gasoline was sold through full service branded stations.

By the late 1960's and the early 1970's, a variety of factors were undermining this established marketing system. The growth of specialized automotive repair services, inflation, the OPEC crisis and resulting higher prices, and a gradual slowing in the growth of demand for gasoline led an increasing number of consumers to place a lower value on service and convenience and to respond more favourably to competition based on price. This shift gradually resulted in a more heterogeneous mix of consumer preferences. By the 1970's and 1980's, the market for gasoline consisted of many consumers who were still willing to pay higher prices for the amenities of full service and many who were not.

This gradual shift in consumer preferences caused refiner-marketers who relied almost exclusively on branded full service networks to gradually overhaul those networks. Several refiner-marketers opened second brand stations to cater to the growing market segment of price conscious consumers. They also streamlined their branded full service networks by closing those stations with low volume, renovating others with higher volume potential, implementing the cost saving technique of self service at many outlets, and instituting cross merchandising through car washes and convenience stores where those approaches seemed appropriate. While making these changes in their networks, each of the major refiner-marketers preserved the traditional offering of branded full service to the significant numbers of consumers who still preferred it.

In short, the history of gasoline marketing in Canada reveals a complex and evolving pattern of competition based on service, competition based on price and mixed price and service competition. Indeed, as the tastes and preferences of consumers have shifted and become increasingly diverse, many different price and service combinations have become available. Texaco Canada has not specialized in any one market segment, but has instead tried to provide consumers with a wide variety of price and service offerings.

Nevertheless, the Director in Volume VI of the Green Books[1] claims that independents were more efficient than the major refiner-marketers because, in his view, they could pump gasoline at lower per gallon cost. The Director further claims that the refiner-marketers were well aware of the independents' relative efficiency and suggests that they should have completely abandoned their high cost retailing operations in favour of the low priced, less service style of the independents. Instead, according to the Director, the refiner-marketers "showed little inclination to accept the more efficient style of distribution that the independents pioneered"[2] and engaged in a variety of predatory activities designed to protect their high cost branded full service networks while avoiding price competition with one another.

The Director's analysis of the retail gasoline market is fundamentally mistaken for two reasons. First, it is factually incorrect. The retail networks of the major refiner-marketers have undergone a substantial change. In the early years, it is true that branded station networks included many low volume, full service outlets. This early configuration responded well to consumer demand. As demand changed, so did the branded networks. Now most of the refiner-marketers have revised their strategies to offer fewer outlets with much higher average volume throughputs. Today's networks feature a variety of price and service combinations, including self service, full service, independent style second brand stations, and cross merchandising outlets. Instead of preserving their full service networks intact, the refiner-marketers have streamlined and diversified their retail networks. As a result, they have gained volume economies similar to those achieved by the independents in some outlets, while at the same time maintaining their competitive edge of superior service and brand identification in serving the segments of the market that value those offerings. Thus, contrary to the Director's assertion, refiner-marketers have shown a substantial inclination not merely "to adopt the more efficient style of distribution that the independents pioneered" but to revise and improve upon that style of distribution as consumer preferences shifted.

Second, the Director's analysis rests on the unsupported and implausible assumption that the independents' marketing strategy of little service and low price is, and always has been, inherently superior to a branded full service strategy. While it is certainly true that a company choosing to offer less service will usually incur fewer costs and therefore be able to sell product at a lower price than a company opting for a more service oriented marketing strategy, this truism reveals nothing about the relative efficiency or superiority of the two strategies.[3] In a competitive market, the superior or, more accurately, the most successful marketing strategy will be the strategy that appeals to the tastes and preferences of most consumers. As consumer tastes and preferences change, the most successful marketing strategy will change. Moreover, because consumer preferences are rarely if ever homogeneous, marketing strategies offering different price and service combinations frequently coexist, and each may be successful, although the relative popularity of each will depend upon the preferences of different groups of consumers.

Thus, the Director's argument that a strategy based upon less service and lower price is inherently more efficient is unsound, because consumer preferences for various price and service combinations are neither homogeneous nor static. Indeed, to the extent that the effectiveness or efficiency of a company's marketing strategy should be defined in terms of its responsiveness to consumer preferences, the strategies of Canada's major refiner-marketers were more efficient than those of the independents. The refiner-marketers' strategies from the

1950's to the present have, like consumer preferences, changed and become increasingly diverse in response to consumer demand for different service levels. As long as these strategies accurately match consumer demand, it would be perverse to label them inefficient.

II. The Dynamics of Price and Service Competition

The history of petroleum marketing in Canada reveals that refiner-marketers have adopted pricing and marketing strategies designed to respond rapidly to the changing demands of a highly competitive market. Indeed, each was compelled to monitor market conditions closely and adjust its marketing strategies to keep pace with consumer desires and the changing strategies of the other refiner-marketers and the independents.

Texaco Canada provides a good example. Over the last decade, as consumer preferences began to change more rapidly and as the number of consumers willing to sacrifice service for price grew, the company made significant changes in its retail strategies. It increased its second brand offering, in terms of number of outlets and volume sold, introduced self service pumps at many Texaco branded outlets, and substantially reduced its traditional branded full service offering by closing many low volume outlets.[4] As a result of these changes, Texaco Canada today serves approximately the same percentage of the Canadian retail gasoline market as it did ten years ago but through many fewer retail outlets. During the same period, the company's average throughput per outlet increased substantially.

Documents seized from Texaco Canada by the Director tell that story for the years described in the Green Books. These documents demonstrate that Texaco Canada was forced to readjust its marketing strategies constantly to reflect the changing competitive situation. The company's primary marketing goal always has been to build and retain customer patronage through marketing programmes designed to provide an edge on competition. The programmes used by Texaco Canada have varied over the years to meet changing market conditions. During the 1950's and early 1960's, for example, the company's marketing programmes were designed to build customer loyalty by providing motorists with locational convenience and assurance of a uniform quality of service and products. As its competitors developed similar offerings, the company was compelled to seek different ways of obtaining a competitive edge. By the late 1960's, Texaco Canada developed its Starburst of Bonuses programme, successfully differentiating its retail offering from those of its major competitors.

Texaco Canada's constant effort to adjust its promotional and service strategies reflects the intense pressure that competition based on service, just like competition based on price, can place on market participants. An example of this pressure is described in a 1970 Texaco Canada marketing study.[5] This study shows that during early 1970 the company realized that, for the first time in several years, Shell's gasoline sales were increasing more rapidly than Texaco's in Montreal. In order to analyze Shell's success and develop a successful counterstrategy, Texaco Canada conducted an in depth, in house study of Shell's retailing activities in Montreal. The study concluded that Shell's success was attributable to several factors. Shell had embarked on an extensive development programme, involving the construction of new stations, major renovations at several existing stations including the expansion of service bay facilities, and facelifting of several other stations to increase their attractiveness and consumer appeal.[6] Other factors contributing to Shell's success included increased promotional activity, increased advertising, increased hours of operation at several Shell outlets, and the "calibre of Shell's lessee-dealers."[7]

In order to counter Shell's sales gains, the study recommended that Texaco Canada revise its Starburst of Bonuses promotional campaign, extend hours of operations at some of its outlets and upgrade its locations through a site development and renovation campaign of its own.[8]

The company's need to respond to the activities of its competitors has also been reflected in its pricing policies. As the Green Books indicate, Texaco Canada was not, by virtue of its size, a market leader on a national basis. As a result, its early pricing policies reflected a desire to monitor the strategies of its competitors closely and respond quickly to any changes.[9] This defensive approach reflected the intense competitive pressures placed upon Texaco Canada by its larger competitors. If the company had chosen not to follow its larger competitors when they lowered their prices, it would have lost both volume and profits as its full service customers moved to the lower priced full service offerings of its competitors. Texaco Canada was smaller than its major competitors yet, at the same time, sufficiently large to provoke their competitive response to any price maneuvers it might make. Its experience in the marketplace was such that it believed that any price cuts it initiated would likely be matched by its major competitors. Accordingly, as a matter of general policy, Texaco Canada did not believe that price reductions instituted by it would increase its volume or profitability. Thus, competitive market forces led Texaco Canada to adopt a strategy of following its larger competitors.

As consumer preferences shifted and independent marketers began to increase their share of the market during the 1960's and 1970's, the pressures of the market forced Texaco Canada to revise its pricing strategies. In markets where the company faced competitive pressure from independent marketers and its strategy of following the prices of other major refiner-marketers resulted in lost volume and profits, the company departed from that strategy and instead lowered its prices where necessary to maximize profits, whether or not its major competitors lowered their prices.[10] In markets where independent marketers were not so strong or where other major refiner-marketers vigorously cut prices to meet the independent marketers, it continued to respond to the competitive pressures provided by its major competitors.

In implementing its pricing policies, Texaco Canada did not blindly follow the price changes of other sellers. Rather, it set its prices at levels which it believed would maximize its revenues. For example, when implementing allowance or consignment programmes, the company followed a routine procedure requiring its marketing personnel to estimate the effects of each option on revenues and to choose the option that, according to the required calculations, would maximize revenues.[11] Similarly, when considering whether to convert an established outlet to a second brand outlet, Texaco Canada based its decision on perceived profitability. Indeed, during the late 1960's and early 1970's, a form (EO-46) was used to make this calculation for each individual outlet to which the company was considering granting assistance. A copy of this form is attached as Exhibit III-1. This form required marketing personnel to calculate projected revenue at present prices and at proposed future prices, to estimate volume at both price levels, to subtract certain costs and to compare the gross profit that would be generated by the alternative pricing strategies.[12] Lower prices would be approved to the extent that they would increase revenues.

Texaco Canada's estimates of the profitability of its pricing decisions were not always accurate; its competitors' counterstrategies sometimes proved to be more effective than

anticipated. As competitive strategy was recognized, the company altered its approach. For example, documents seized by the Director show that in September 1971, Texaco Canada decided to discontinue its allowance programme in Ontario because, according to various calculations by marketing personnel, it would maximize profits by selling less volume at a higher margin.[13] Within the next few weeks, the company discovered that, due to continuing competitive pressure, the discontinuance of its allowance programme had resulted in greater volume losses than originally had been anticipated.[14] Based upon revised calculations showing that reinstating the allowance programme would increase revenues, the company responded by once again assisting selected outlets in Ontario.[15].

III. Allegations of Anti-Competitive Practices by Major Refiner-Marketers

Although the rapidly shifting marketing strategies of the major refiner-marketers appear to be the natural result of the competitive pressures of the marketplace, the Director has chosen to condemn them (1) as "the result of a conscious attempt [by major refiner-marketers] to coordinate their behaviour against price competitive outsiders" and (2) as predatory in nature.[16] In order to analyze these allegations, it is first necessary to assess the Director's theories of harmonization and predation. In this context, it should be possible to devise an analytical framework which accurately distinguishes between marketing practices and patterns that are the natural result of competitive forces and those that should be considered anti-competitive.

A. The Myth of Harmonization

(i) The Factual Record

Each major refiner-marketer in Canada adopted marketing strategies during the 1950's and the early 1960's designed to appeal to what at that time was the principal market segment: consumers preferring full service. As one might have expected, the pricing and marketing decisions of each turned out to be roughly similar, or at least to appear similar vis-a-vis those of various independent marketers. Refiner-marketers shared common attributes that directly affected their marketing and pricing decisions. Unlike the independents, they were vertically integrated marketers of petroleum products. They traditionally sold a large portion of their gasoline through networks of full service, branded retailers.

Nevertheless, significant differences existed among them. Those differences increased as markets became more complex. As consumer preferences began to shift in the 1960's and the number of price conscious consumers began to grow, market forces compelled each refiner-marketer to respond by lowering prices at those outlets in its network that were losing volume to the price oriented strategies of the independent marketers. Consequently, each refiner-marketer implemented, in varying forms and to differing extents, consignment and allowance programmes to assist its retailers.

In the Green Books, the Director suggests that refiner-marketers used consignment and allowance programmes in harmony: implementing such programmes in a parallel fashion where competition from independent marketers placed pressure on their branded networks, and then removing them in a parallel manner after the independents had been eliminated or suitably "disciplined."[17] This characterization totally misrepresents the facts. While it is

certainly true that each of the refiner-marketers used support programmes on various occasions and that, on some of these occasions, their decisions to institute or remove such programmes roughly coincided with one another, dramatic differences existed in the extent to which each used these programmes.

Even a casual examination of the Tables in Appendix A in Volume VI of the Green Books reveals that the major refiner-marketers have followed markedly diverse policies concerning the use of consignment and allowance programmes.[18] In Table III-1, the data in Appendix A have been restructured to facilitate comparison of the manner in which each of the refiner-marketers used consignment and allowance programmes.[19] Table III-1 discloses a remarkable lack of coordination or harmonization among the refiner-marketers implementing such programmes.[20] Texaco Canada rarely implemented such programmes. Gulf seems to have adopted a different policy: consistent regular use of such programmes in Quebec and Ontario (like Shell and unlike Texaco) and sporadic use elsewhere (like Texaco and unlike Shell).

The magnitude of the differences between the use of support programmes by each refiner-marketer is striking. During 1973 in Quebec, for instance, Texaco Canada sold only 6 percent of its volume under support programmes, while the percentage of Gulf's volume sold under such programmes was more than six times greater and Shell's was more than ten times greater.[21] Similarly, during 1975 in Quebec, the company sold almost all of its volume under support while Gulf sold less than half of its volume, and Shell sold slightly over a quarter.[22]

The data tabulated in Table III-1 reflect the degree to which each company found it necessary to assist retailers in reducing prices to meet competition. The differences in the support percentages thus reflect different conclusions by different sellers about the extent to which price and non-price techniques should be used to maximize profits. The differences suggest a marketplace in which price competition is alive and well.

TABLE III-1.

Percentage Volume on Support by Major and by Region

	1971	1972	1973	1974	1975
Atlantic					
Shell	10	9	8	10	10
Gulf	—	0	0	0	4
Texaco	—	1	0	2	5
Quebec					
Shell	81	72	39	15	29
Gulf	87	86	64	35	47
Texaco	8	85	6	40	85
Ontario					
Shell	29	31	39	34	64
Gulf[23]	17	24	38	34	51
Texaco	4	5	7	6	11
Prairies					
Shell	1	3	9	40	23
Gulf	1	1	4	8	12
Texaco	—	2	1	7	13
British Columbia					
Shell	4	4	6	5	20
Gulf[24]	—	—	—	0	29
Texaco	—	—	—	1	6

Source: Appendix A of Volume VI, Tables 1, 2, 5, 6, 9 & 10.

Notes:

1) Dashes have been inserted where the Green Books supply no data.
2) Imperial is omitted because the data reported for it is not in a form suitable for comparison.

The major refiner-marketers' approach to second brand operations also reflects a dynamic, competitive marketplace. During the late 1960's, some of the major refiner-marketers attempted to attract the growing number of price conscious consumers by supplementing their full service offerings with lower priced second brand stations. As with their differing uses of consignment and allowance programmes, however, each of the refiner-marketers adopted a different policy. Imperial and Shell apparently made extensive use of second brands, employing brands such as Econo and Gain (by Imperial) and Beaver, Gas Mart and Savex (by Shell). Texaco Canada, in contrast, used second brands more sparingly. Gulf, on the other hand, apparently pursued an entirely different course: having made an early decision not to implement a second brand strategy,[25] Gulf chose instead to compete in price sensitive markets with its own brand.

Different second brand policies arose because of the distinct and competing marketing strategies of the major refiner-marketers. These differences led to intense price competition. Texaco Canada documents, for example, reveal the competitive pressures placed upon its full service network by the second brands of other refiner-marketers:

> The exposition by the nine Ontario District Managers of the problems they are having in selling gasoline on the retail market made clear some situations and trends that face each of them in varying degrees of intensity.
>
> The most significant factor is the sharp shift in the availability of ''private brand'' gasoline (meaning any brand names other than the trademark brand name of refiners). This availability is now through hundreds of retail outlets in Ontario, a good percentage of which are modern, attractive and well engineered.
>
> * * * * * * * * *
>
> *It is apparent that Imperial, Shell, Sun and BP — and to a lesser extent Gulf — are actively engaged in going after a share of this ''private brand'' consumer demand both by supplying private brand jobbers and by creating their own chain of outlets selling gasoline but not their branded gasoline.*
>
> We are in a position of having to make a decision whether or not to do likewise. If we want to reach out for our share of the unbranded gasoline market that has to be marketed at a retail price ranging roughly from 40¢ to 46¢, then we have to make a plan — and the required investments and expenditures — to do so through debranding outlets and conversions to Regent etc.[26]

Moreover, the competition Texaco Canada faced from second brands was not limited to areas in which independents were located.[27] In Toronto during 1973, for instance, the company implemented a consignment programme at some of its branded stations specifically designed to counter ''the growing de-brand competition of our competitors especially Imperial Oil and Shell, and Gulf's recent aggressive attitude toward meeting competitive situations in the market place.''[28] Indeed, the decision to institute support was prompted primarily by Imperial's conversion of several outlets to Gain and underpricing several nearby Texaco branded outlets.[29]

The major refiner-marketers also made disparate use of a variety of service and promotional strategies. Texaco Canada's Starburst of Bonuses programme of the late 1960's and early 1970's, discussed earlier, proved to be a highly successful means of differentiating its full service offering from similar offerings of its competitors. The other refiners attempted to respond to the company's programme with other promotional programmes that also offered consumers discounted merchandise for repeat purchases. These programmes apparently were

not as successful as Starburst. Its competitors apparently did not follow the Starburst strategy of encouraging repeat purchasers on an individual retailer basis rather than on a network basis, thus providing each Texaco retailer with a greater incentive to participate and to contribute to costs.

Texaco Canada's major competitors, however, devised their own competitive service offerings. Imperial, for instance, developed its Three Star diagnostic service centres during the 1960's and 1970's, a specialized service strategy that required a substantial investment. The other refiners adopted different approaches. Shell and Imperial invested heavily in tunnel car wash facilities, while Texaco Canada chose the less costly approach of converting a limited number of its service bay facilities to in-bay car washes. Gulf, meanwhile, placed more emphasis on renovating and facelifting its retail outlets. During the 1970's and 1980's, it also converted many of its full service outlets to Gulf branded gas bars.

Each refiner-marketer also reacted differently to the private brand market. Texaco Canada has historically distributed a substantial portion of its volume through independent resellers. It has been Canadian Tire's primary supplier for over twenty years. This longstanding relationship with Canadian Tire allowed Texaco Canada to participate indirectly in the private brand market. Other refiner-marketers apparently relied more heavily upon direct participation through second brands.

It is thus apparent that, although most refiner-marketers used consignment and allowance programmes, second brands, promotional programmes, sales to independent resellers, self service, full service, car washes and other cross merchandising techniques in varying degrees and at varying times, each adopted different mixes at different times. In the face of the complexity and diversity of offerings in the retail gasoline market, it would have been futile for marketers to attempt tacitly to coordinate or harmonize their activities in order to raise prices. To reach an effective tacit agreement while maintaining market shares, competitors would have had to harmonize the details of their diverse marketing strategies and techniques. Competitors, for instance, would have had to adopt similar policies governing the amount, duration and location of support programmes. As the evidence shows, the refiner-marketers' use of these programmes was not uniform in any of these respects. Competitors would also have had to agree on prices at second brand stations, self service stations, and car washes, as well as on the number and location of such stations. Yet the evidence clearly indicates that each refiner-marketer used these marketing techniques differently. Competitors would also have had to agree to limit costly promotional campaigns, but again, the evidence before this Commission is to the contrary. Finally, they would have had to reach agreement on and coordinate the volume and price of gasoline sold to independent resellers. Once again, the evidence simply does not support the existence of such an agreement.

(ii) The Director's Theory

Despite the implausibility of the assertion that the marketing policies of Canada's major refiner-marketers were a product of tacit collusion, the Director chose to characterize them as such in Volume VI of the Green Books. The Director alleges that the various marketing and pricing policies adopted by those marketers were "the result of a conscious attempt to coordinate their behavior against price competitive outsiders."[30] He concedes that direct communications among the majors "were not primarily responsible for" this alleged

"coordination"[31], but contends instead that a mutual understanding existed among major refiner-marketers to engage in anti-competitive conduct against discounters even without direct communication. To support this contention, he relies upon evidence allegedly indicating that the pricing and marketing policies of refiner-marketers "tended to parallel and reinforce one another."[32]

The Director's theory is wrong.

First, it is factually inaccurate: each refiner-marketer adopted a unique and changing mix of marketing and pricing strategies which, far from reinforcing those of its competitors, resulted in intensified service and price competition.[33] Their policies can be viewed as parallel only in an extremely general, and meaningless, sense. At various times, each used similar strategies, albeit in differing degrees. But parallelism in this sense proves nothing relevant about the state of competition in the marketplace, except to the extent that it shows that competition required each seller to react to the marketing moves of other sellers.

Second, the isolated episodes of parallelism described in the seized documents do not suggest collusion, tacit or otherwise. Indeed, in a competitive market one would expect the pricing and marketing policies of refiner-marketers to appear similar or parallel.[34] The Director apparently views this appearance as evidence of collusive behavior or harmonization. A fair analysis of applicable economic principles will show that the Director's approach is completely unsupportable.

As consumer preferences began to shift in the 1960's and the number of price conscious consumers began to grow, each of the full service oriented refiner-marketers responded. Because this development posed the same competitive challenge to each similarly structured refiner-marketer, each inevitably chose a response that was likely to be similar. As the market shares of the discount marketers and second brand stations increased, each competing refiner-marketer responded to the challenge, often by reducing prices and supporting its retailers. Once the first refiner-marketer reduced its price, the pressure on competitors to reduce their prices intensified because they then faced the competition of a low priced refiner-marketer as well as the low priced discounters. Each refiner-marketer therefore had an independent business justification for reducing its price, and closely parallel price reductions should not be mistaken for evidence of anti-competitive collusion or agreement.

Similarly, after prices had dropped significantly in a particular area, each market participant, including the discounter, would perceive an independent incentive to increase price. Because demand for gasoline is inelastic in the short run, each market participant discovered that, as other market participants lowered prices to retain volume, volume economies from the initial price cut dwindled and cost pressures increased.[35] None of these companies could expect to attract or even keep customers if it raised its prices and none of its competitors followed. Any initial price increase must therefore have been accompanied at least by the expectation that others would follow. Such an expectation need rest on nothing more than a belief by the company contemplating a price increase that its competitors must likewise be feeling the pinch of dwindling volume economies and increasing cost pressures. No agreement, tacit or otherwise, would have been necessary. The economic forces acting on all competitors simultaneously would ultimately bring prices back up.

The fact that, in making individual pricing decisions, each refiner-marketer probably considered the possible response of its major competitors is neither surprising nor suggestive

of collusion. Indeed, since each refiner-marketer was an important participant in all major markets, it would be foolhardy for any refiner to ignore the pricing policies and possible responses of the other refiners.

> In a significant sense, *the behavior of the rational oligopolist in setting his price is precisely the same as that of the rational seller in an industry consisting of a very large number of competitors*. Both are pricing their product and determining their output so as to make the highest profit, or suffer the least loss, that can be obtained in the market conditions facing them. *The rational oligopolist simply takes one more factor into account — the reactions of his competitors to any price change that he makes. He must take them into account because his competitors will inevitably react.* They will inevitably react, for example, to a price cut on his part because otherwise the price cut will make a substantial inroad on their sales; if, for example, there are only three producers of equal size and a price cut by one doubles his sales, the sales of each of his two competitors will be cut in half. The rational seller in an industry with a very large number of competitors does not calculate their reactions to a price cut by him, because they are not likely to be sufficiently affected by the price cut to react; if, for example, there are one hundred producers of equal size, a doubling of sales by one, evenly drawn from his competitors, would cut their sales by only one ninety-ninth. To repeat, *it can fairly be said that the rational oligopolist is behaving in exactly the same way as is the rational seller in a competitively structured industry; he is simply taking another factor into account, which he has to take into account because the situation in which he finds himself puts it there*.[36]

While the pricing decisions of large refiner-marketers might appear interdependent, such interdependence is the result of competition and not suggestive of collusion, tacit or otherwise; it is the natural result of ''rational individual decision in the light of relevant economic facts.''[37] Nor is such behaviour inconsistent with the existence of vigorous competition ultimately leading to the pricing of different offerings at prices close to or at the level that one would expect in a purely competitive market.[38] The Director's condemnation of the refiner-marketers for recognizing relevant market conditions and taking them into account is tantamount to criticizing them because they failed to behave irrationally.

(iii) Texaco Canada's Role

Nowhere is the Director's misguided understanding of the pressures placed upon each refiner-marketer by its competitors more evident than in his description of Texaco Canada's policies. The Director contends that ''Texaco's decision to adopt the same policies as the other majors cannot be described as the outcome of a normal competitive market'' and that the policies adopted by Texaco were ''not forced upon it'' or ''the only course of action available to it''; instead, according to the Director, Texaco's policies ''were adopted with the full knowledge of their consequences and with the objective of reducing competition.''[39] In support of this contention, the Director relies on Texaco Canada documents describing an episode in Ontario in early 1968. According to the documents, Shell and Gulf increased their tank wagon prices and, shortly thereafter, Imperial increased its tank wagon price but to a different level than Shell and Gulf. Unlike Shell and Gulf, however, Imperial coupled its

increase with the institution of an allowance programme which had the effect of discouraging its retailers from passing the tank wagon increase to consumers.[40]

After learning of the price increases by Shell and Gulf but before Imperial had acted, Texaco Canada marketing officials considered a course of action. As the Green Books indicate, they tentatively concluded that they should match the increases of Shell and Gulf.[41] The Green Books, however, fail to mention that this tentative decision was clearly motivated not by some nefarious intention to support the price increases of Shell and Gulf but by the company's own independent determination that economic conditions in the Ontario market justified a price increase.

> As the economic study which our Economics Department made a few weeks ago caused them to observe that they believed that prices in the Ontario market were unduly low in relation to comparative crude and transportation costs, it would appear that we would be wise to decide to increase our prices at this time; and it would be advisable to increase them in the same geographic pattern and by the same amounts as Shell have done, and as B.A. [Gulf] presumably are doing.[42]

In reaching this tentative decision, Texaco Canada recognized a potential hazard because of their uncertainty over Imperial's possible reaction.

> Our major competitor [Imperial] may not elect to increase prices at this time; or he may elect to change them on a different geographic pattern and by different amounts; in which case we and our other competitors will undoubtedly have, ultimately to adjust . . .[43]

The company's apprehension was justified. Imperial increased its tank wagon price in some areas, left it the same in others, and lowered it in one area, resulting in Imperial having a different tank wagon price from Gulf and Shell in all areas.[44] Moreover, Imperial coupled its price changes with an allowance programme.[45] In a memorandum dated the following week, Texaco Canada's officials analyzed Imperial's strategy. They determined that, in those markets where Imperial increased its tank wagon prices by 0.8 cents per gallon, it at the same time offered an allowance matching the price increase. This allowance was provided to retailers in stable areas who did not price above 46.9 cents per gallon and to retailers in unstable areas who did not price above 45.9 cents per gallon.[46] Although curiously absent from the story told in the Green Books, the memorandum also makes clear that, in Texaco Canada's view, the effect of Imperial's strategy was — far from stabilizing prices at higher levels — to frustrate Shell's (and presumably Gulf's) strategy of increasing its tank wagon prices.

> This [Imperial's] strategy will defeat Shell's intention to get for themselves this .008 by having the reseller pass it on to the consumer in the form of a .01 retail increase. Where the dealer does this, Imperial Oil are making it certain that the Shell retailer will be pricing at retail above the Imperial Oil retailer.[47]

Texaco Canada, which had not implemented its earlier tentative decision to match the tank wagon increases of Shell and Gulf,[48] then revised its earlier decision in response to Imperial's new strategy. Rather than matching the increases of Shell and Gulf, its officials decided to follow Imperial's strategy.[49]

Thus, the episode described in the Green Books is reflective not of collusive behavior or harmonization but of keen competition among major refiner-marketers: Shell and Gulf increased prices and were immediately undercut by Imperial. Texaco Canada considered its options and felt obliged by competitive pressure to follow Imperial, even though it obviously would have preferred the approach of Shell and Gulf. This is a clear example of conflicting and non-parallel activity by major refiner-marketers.

The Director, however, construes the episode as an example of ''a conscious attempt'' by Texaco Canada ''to reinforce'' Imperial's effort ''to squeeze'' the independents.[50] According to the Director, the company's decision to follow Imperial was not the ''normal outcome of a competitive market'' because Texaco was ''[f]ully aware'' that Imperial's strategy would ''squeeze'' the independents and recognized that it ''did not have to follow Imperial.''[51]

What the Director ignores is that, whatever effect Imperial's strategy might have had on the independents, Texaco Canada clearly understood that Imperial's actions imposed a serious price squeeze on Shell and Gulf, as well as on the company itself. In other words, Imperial's strategy, like any pro-competitive strategy, made life more difficult for all competitors in the market. The Director also misapprehends the desire for control that in part prompted Texaco Canada's decision to adopt Imperial's strategy of raising tank wagon prices while instituting an allowance programme rather than simply not raising its tank wagon price. As the documents clearly show, Texaco Canada had already determined that an increase in dealer tank wagon price was economically justified. Following Imperial's strategy was a way for Texaco Canada to encourage its retailers to match the lower Imperial retail prices where necessary, while simultaneously enabling it to recover the justified tank wagon price increase where competitive conditions allowed. In short, the company simply wanted to make certain that its retailers, unlike those of Gulf and Shell, would not be undercut by Imperial retailers. It is difficult to see how the desire of a refiner-marketer to increase control in order to meet a competitor's prices can be viewed as an example of anti-competitive activity.

When Texaco Canada's actions are considered in the broader context of the wide variations that existed among the marketing strategies of refiner-marketers, it is apparent that the Director has wrongly identified the tendency of competing companies with similar attributes to behave in roughly similar ways as evidence of anti-competitive, collusive behaviour.

The record of the last 35 years of petroleum marketing in Canada reveals that Texaco Canada, like any rational company in a competitive market, adopted marketing strategies ''best suited to its own situation.''[52] These strategies brought it into conflict both with other refiner-marketers and with independent marketers.

B. The Predatory Pricing Allegations

As the discussion above has demonstrated, the marketing and pricing strategies of Canada's major refiner-marketers have changed and evolved to meet changing consumer preferences. In Volume VI of the Green Books, however, the Director has chosen to characterize many of these strategies, specifically the introduction of price cuts through consignment and allowance programmes, as predatory devices designed to eliminate or discipline independent marketers. The Director's characterization of these practices results

from a mistaken concept of predation. Subsection 34(1) of the *Combines Investigations Act* reflects Canadian policy that an essential ingredient of predation is the practice of selling at "unreasonably low" prices.[53] In the Green Books, however, the Director fails to define or even to discuss specifically the concept of unreasonably low prices. Consequently, the Director's theory of predation invites the characterization of pro-competitive price cuts as predatory and, indeed, poses the grave threat of protecting "special business interests" and preventing the market from operating "freely to bring about the best price/service package possible to the Canadian consumer."[54]

(i) The Director's Theory of Predation

In the Green Books, the Director recognizes that "distinguishing between predation and legitimate price competition is not an easy task,"[55] and that "the mere adoption of lower prices in markets where new petroleum marketers exist does not prove that a predatory policy... is being employed."[56] Thus, the Director correctly perceives that "[w]hat is obviously required is a criterion to permit a determination of whether a pricing practice is legitimate or illegitimate."[57]

Though the Director states the problem well, he fails to address the issue responsibly. His conclusion that the pricing practices of the major refiner-marketers were predatory is based upon two factors: (1) refiner-marketers were faced with competition from allegedly more "efficient" independents;[58] and (2) these refiner-marketers allegedly intended "to force the independents to raise their prices." Although the Director also suggests that "in some cases," refiners' pricing tactics were predatory because they were below cost, he does not rely on any cost based standard for determining whether their pricing tactics were predatory.[59]

As the discussion that follows will demonstrate, because the Director's test for predation[60] turns largely on intent rather than objective economic facts, it cannot adequately distinguish between pro-competitive price competition and anti-competitive conduct.[61] Indeed, there is a widespread consensus among competition scholars and economists that, in deciding whether price cutting is legitimate or predatory, intent cannot be determinative.

Reliance upon intent can be misleading for two reasons. First, determining the actual intent of a large corporate entity is necessarily speculative since a corporation's documents are likely to contain inconsistent expressions of intent both by different employees and even by the same employee over time. Second, even if corporate expressions of intent were consistent, any expression of intent with regard to competitive strategies and tactics is inherently ambiguous.[62]

The documents cited in the Green Books underscore the first difficulty. They frequently reveal differences of opinion among employees concerning the purpose and effect of various marketing and pricing strategies. Yet the Director does not describe a method for imputing intent to corporate acts when there is a difference of opinion within the company. Rather, the Director simply sidesteps the problem by ignoring any statements by corporate executives and employees that do not support his view: an approach that at best results in conclusions about the nature of refiner-marketers' behaviour that are mere guesswork, and at worst exhibits bias on the part of the Director.

The second difficulty is the Director's failure to recognize the inherent ambiguity of any expression of intent with regard to pricing practices. Even in fully competitive markets, companies intentionally set their prices and design their service offerings to increase profits by

winning sales from competitors. Thus, any competitive company, if totally successful, will intentionally drive all competitors from the marketplace. If it is only partially successful, with its competitors retaining a reduced volume of sales (or with their growth in sales arrested), the affected competitors may well feel disciplined by their successful rival. But that in itself does not make its behaviour anti-competitive. The company may have succeeded in vanquishing (or disciplining) its competitors because of its greater efficiency, skill or foresight. Since its behaviour may represent nothing more than vigorous competition on the merits, it should not be penalized for successfully competing, regardless of how its competitors feel or how its employees may describe its motives in internal documents. For this reason, a company should not be subject to sanctions unless it engages in conduct that, based on some objective standard, is considered anti-competitive. If intent were controlling, competition laws would become a shield for inefficient competitors and inefficient new entrants, insulating them from legitimate competition by established companies.[63] Thus, a reasonable competition policy should look to an objective, cost based test of behaviour (as suggested by the concept of unreasonably low prices) in order to determine whether a company's pricing response to its competitors is anti-competitive.

The Green Books' heavy reliance on internal company documents purporting to show that each refiner-marketer intended to set its prices so as to drive independents from the market or discipline them is consequently misplaced. Even if these documents supported the Director's allegations concerning refiner-marketers' intent, which they do not, in and of themselves they demonstrate nothing more than the willingness of those companies to respond vigorously to the challenge posed by their competitors, a willingness which sound competition policy would hardly seek to deter. Therefore, to establish anti-competitive behaviour the Director must also demonstrate that the actual pricing actions undertaken by refiner-marketers violate some objective standard of anti-competitive conduct.

The Director attempts to shore up this obvious shortcoming by weaving into his predation standard two ostensibly objective elements: (1) the ''situation'' faced by the major refiner-marketers: the realization that their ''crowded'' full service networks required ''high'' margins in the face of the ''more efficient'' competition of independents;[64] and (2) evidence of pricing below cost ''for a considerable period'' by one refiner-marketer.[65]

Although the first element seems to acknowledge the desirability of an objective test for predatory conduct, the Director's effort to incorporate this ''objective'' element into his analysis ultimately fails because it is inextricably linked to his subjective, and empirically unsupported, definition of ''efficiency.''[66] Moreover, the Director fails to analyze the relationship between the single structural characteristic which he has identified — excess capacity — and the likelihood of predatory conduct. Instead, he implicitly assumes that any form of price cutting by companies experiencing excess capacity is inherently indicative of predation. The relationship between excess capacity and likelihood of predation, however, is quite complex and, as explained below,[67] does not support the Director's unarticulated and unexplained assumption. Indeed, since excess capacity always leads to lower prices in perfectly competitive markets, his assumption is completely unfounded.

Although the second element, pricing below an appropriate measure of cost, may form the basis of an objective predation standard, the Director explicitly refrains from relying on this critical element in alleging that the pricing practices of refiner-marketers were predatory.[68] Consequently, the objective element of below cost pricing identified by the Director is not integrated into his predation analysis.

(ii) Structural Characteristics of the Retail Gasoline Market

As the discussion above indicates, the amorphous definition of predation contained in the Green Books is unsatisfactory because it fails to distinguish between legitimate, pro-competitive price cuts and predatory, anti-competitive price cuts. In order to draw this critical distinction accurately, objectively identifiable market characteristics and behaviour patterns of individual companies must be assessed.

A useful place to start in determining whether ambiguous conduct should be deemed predatory is a review of those structural market characteristics that will inevitably affect the likelihood that predation will be successful if it is attempted. The relative likelihood that predation would be successful if attempted can help in assessing whether the allegedly predatory conduct was actually innocent. The reason is simple: if predation cannot succeed in a given market, it is unreasonable to assume that a rational company would try to act predatorily. Thus, if a market exhibits characteristics that make successful predation unlikely, the standard for determining whether companies in the market have in fact engaged in predation should not be as stringent as might be thought appropriate in markets where the likelihood of predation is strong. A stringent standard in such markets carries a high risk of penalizing pro-competitive conduct and offers little concomitant gain in checking anti-competitive conduct.

(a) Entry Barriers

As the Director concedes, the ''structural characteristics'' of the retail gasoline market ''make entry to the industry relatively easy.''[69] Specifically, he notes that ''barriers to entry'' in retail gasoline marketing are low.[70] While the Green Books do not define the types of ''natural barriers'' to which the Director is referring, economists generally use this term to refer to such matters as licensing requirements, excessive product differentiation, differential capital costs, or other factors which would make a new entrant's costs for a given level of output significantly higher than the costs of existing companies.[71] And the Green Books are correct in assuming that in the gasoline retailing market, barriers such as these are generally recognized as minimal.[72] The fact is that service stations can be established by newcomers to gasoline marketing at costs comparable to those borne by existing marketers.

The Director, however, fails to recognize the important effect that the lack of natural entry barriers in the retail gasoline market has on an analysis of whether predation has taken place in that market. Instead, he concludes that, although natural barriers to entry in the market are low, predation may still take place because predatory activities or the threat of predatory activities may themselves form a barrier to entry.[73] This reasoning is misguided.

The essence of predation is the deliberate sacrifice of short term profits in order to eliminate or discipline competitors so that higher prices may be charged and greater profits earned in the long run after the competitors have been eliminated or disciplined. Thus, a predatory strategy makes sense only in a market where, once competitors have been eliminated or disciplined, some obstacle exists that prevents new competitors from entering (or old competitors from re-entering) or existing (but disciplined) competitors from returning to pre-disciplined price differentials when the predator attempts to recoup his profits by raising prices.[74] Such obstacles (or entry barriers) are a prerequisite to successful predation.[75]

Where entry barriers are low, neither price cutting nor the threat of price cutting can by itself make predation a successful strategy, no matter how low the prices are set. The

would-be predator must somehow be able to reap the benefits of his previous, presumably costly, behaviour. He is unlikely ever to be able to reap those benefits in a market where there are no natural entry barriers. The reason is simple: any would-be predator would have to maintain his prices at predatory levels indefinitely in order to forestall entry, or he would have to reinstitute predatory prices again and again on the frequent occasions when entry occurred. He would therefore never gain any significant benefit from his predatory strategy. In the unlikely event that a company behaved irrationally and attempted to predate in such a market, the result would merely be a transfer of wealth from the shareholders of the irrational predator to consumers, who would benefit from the low prices of the frustrated predator and his competitors.[76]

The unexercised threat of cutting prices is a similarly ineffective obstacle to entry and consequently should not serve as the basis for deeming such threats to be predatory in a market without other significant entry barriers. In order to be an effective means of predation, a threat must remain "credible yet unexecuted."[77] In a market like the retail gasoline market where entry is easy, the threat inevitably is empty because it is not credible. Would-be entrants can easily recognize that, given the ease of entry, a predator would soon exhaust more than his possible gains from predation if he responded to each and every entrant. They will thus have reason to doubt that the predator will repeat his prior conduct. And the would-be predator will be faced with the dilemma of either responding to each of the myriad challenges to his threat that will be spawned by ease of entry into the market, thereby nullifying the benefits of his threat, or not responding to such challenges, thereby destroying the credibility of the threat.

The Green Books, the documents on which they rely, and hearings before this Commission clearly demonstrate both the ease of entry into the retail gasoline market and the resultant futility of any effort to implement a predatory strategy. Indeed, despite the conclusory language of the Green Books, the facts described in them show that each of the refiner-marketers' networks was constantly under pressure not only from one another but from recurrent entry by independents. Whenever wholesale and retail margins began to grow (which, according to the Green Books, occurred in the late 1950's and again in the late 1960's), the swift and inevitable result was an influx of independent marketers and a concomitant drop in refiner-marketers' market share. Moreover, regardless of whether the pricing policies of refiner-marketers described in the Green Books are labeled predatory or pro-competitive responses to independent entry, the fact remains that, over the fifteen year period covered in the Green Books, the independents' market share increased substantially in those high traffic markets where they chose to compete.[78]

Finally, the testimony of independent marketers before this Commission reveals their tenacity and the rapidity with which they can re-enter a market when prices at refiner-marketers' stations rise. Mr. Hemstreet of Robo Wash, for instance, testified that, confronted with price cutting by the refiner-marketers, he "permanently" closed an outlet in Kitchener, only to reopen the outlet two or three days later.[79] Since actions speak louder than words, Mr. Hemstreet's actions stand as a prime example of the futility of predation or "disciplining" in the retail gasoline market.[80]

(b) Excess Capacity

Another factor that should be kept in mind when analyzing whether a refiner-marketer's price cut is predatory is the alleged presence of excess capacity in the retail gasoline market.[81] Even prior to the entry of independents, the Director claims that the branded networks of refiner-marketers were beset with excess capacity. If so, entry by the independents into a market already characterized by excess capacity only exacerbated the problem.

The Director argues that this alleged excess capacity made predatory conduct more likely. In fact, economic theory shows exactly the opposite to be the case. In a market possessing excess capacity, intense price wars often will occur, but they are likely to be the result of harsh, yet socially beneficial price competition.

> Too much plant capacity may have been built in the industry in the past; but that is not justification for continuing high prices and scarce output. Competition, which the businessman regards as destructive, cutthroat, and ruinous, may actually be the only way to get the redundant plant capacity into operation or to discourage its maintenance . . . Losses or subnormal profits is the free enterprise way of discouraging excess capacity, brutal as that may sound.[82]

Thus, price cutting in a market experiencing excess capacity is not suggestive of predation, but of the inevitable result of competitive processes. Indeed, such price cutting is "socially appropriate, because the construction of additional capacity where excess capacity already exists would waste social resources."[83]

The retail gasoline market during the late 1950's, the 1960's and the early 1970's illustrates the validity of this principle. Had refiner-marketers not responded to the independents' entry with the various forms of price cutting that they used, those consumers who still patronized their stations would have paid more, and sales at those stations would have fallen drastically. As a result, there would have been a sudden, and wholly uneconomic, exit from the market of many full service stations that could have generated cash profits for their owners at somewhat lower price levels, while still serving those customers who were willing to pay for higher levels of service. The result would have been the socially wasteful loss of the substantial investment in those stations rather than the gradual retirement of those stations that actually occurred. Accordingly, the presence of excess capacity in the retail gasoline market, to the extent that it actually existed, provides further justification for any refiner-marketer's individual decision to reduce prices in response to independent entry, and thereby decreases the likelihood that such a decision was predatory in nature.

In light of the more recent appearance of significant excess capacity at the refining level in Canada, it should be noted that excess capacity at that level can also lead to extensive retail price cutting by vertically integrated refiner-marketers. As with the alleged predatory conduct of earlier periods described in the Green Books, such price cutting is suggestive not of predation, but of a market trying to adjust to radically changing supply and demand conditions.

(iii) The Green Books Do Not Demonstrate that Refiner-Marketers Sold Gasoline or Refined Products at Unreasonably Low Prices

The preceding sections demonstrate that the structural characteristics of the retail gasoline market make successful predation unlikely. It is therefore essential that any meaningful inquiry concerning whether predation has occurred in that market clearly distinguishes between socially beneficial, pro-competitive price cuts and predatory price cuts. There is widespread consensus among competition scholars that the proper means of drawing this distinction must include an analysis of the relationship between a company's prices and an appropriately defined measure of its costs. Moreover, existing Canadian competition policy reflects this consensus by incorporating the element of unreasonably low prices into subsection 34(1) of the *Combines Investigation Act*.

While there is some disagreement among competition scholars as to what the appropriate cost standard should be, resolution of that issue is unnecessary to refute the Director's allegations of predation because he explicitly refrains from relying upon any cost based standard. Thus, under any reasonable predation standard, his allegations are unsupported.

Instead of engaging in a careful analysis of refiner-marketers' cost structures and applying an appropriately defined cost analysis, the Director's isolated allegations of below cost pricing consist of anecdotal references to passages in the seized documents and strained interpretations of the meager cost data presented in the Green Books. In particular, the Green Books present no data or evidence indicating that Texaco Canada priced below an appropriately defined measure of cost.

They merely cite isolated excerpts from a single letter written in 1962 by two low level, non-marketing Texaco Canada employees in response to a student's request for assistance in gathering information for an academic paper.[84] Even if one were to make the cavalier assumption that the letter is at all probative of the intent of those Texaco Canada executives who formulated marketing policies in 1962, the letter contains no suggestion that Texaco Canada priced below an appropriately defined measure of cost or that it believed that its major competitors were pricing below an appropriately defined measure of cost. Indeed, to the extent that the letter relates to the issue of cost at all, it indicates that the competitive pressures described in the letter resulted from marginal or incremental cost pricing by its major competitors: ''There is little doubt that some companies in the industry are under such pressures to move volume in order to fill their refineries that they sell some portion of their production on an incremental cost basis.''[85]

Moreover, the observations in the letter that increased discounter competition had ''caused serious problems in maintaining prices at a level adequate for a major oil company lessee to earn an adequate return'' and that ''price wars'' had caused ''corporate earnings'' to be ''seriously reduced''[86] are neither surprising nor indicative of predatory conduct. Needless to say, depressed returns and earnings are a frequent occurrence in a competitive market and are in no way suggestive of predation. Indeed, simple accounting losses, whether measured over the short run or long run, are wholly insufficient to establish predatory pricing. The Director acknowledges as much when, in assessing Imperial's profitability data, he concedes that ''negative average returns . . . [while] suggestive of predatory pricing . . . do not establish whether the majors were actually pricing at levels that did not even recoup marginal costs.''[87]

Although the Green Books do not present evidence of predatory pricing by Texaco Canada, this of course does not stop the Director from accusing the company of being a party to an industry wide scheme of predation. A closer look at the Texaco documents cited by the Director reveals that, to the extent they are relevant at all, they contradict the Director's thesis.

These documents cited by the Director demonstrate that the company's decisions to institute temporary retail price cuts were based on estimates of the revenues that would be generated by various pricing options. Texaco Canada attempted to maximize short run revenues when it changed prices; it did not, as the Director argues, cut prices to eliminate or discipline the independent marketers or increase prices to "contribute to the stability of the oligopoly."[88]

The Director points to Texaco Canada's decision in September 1971 to discontinue its allowance programme in Ontario as an example of the company's effort "to reinforce the policies of the other majors" and "to contribute to market strengthening." According to the Director, this decision "cannot be described as the normal outcome of a competitive market" because the decision was made "with the full knowledge" that it could result in "a decrease in sales" and that the costs "could be high."[89] What the Director inexplicably fails to mention is that the company's documents also clearly show that Texaco Canada had calculated the immediate effect of its decision on net earnings by weighing the increased revenues resulting from higher margins against the decreased revenues resulting from decreased sales volume and had concluded that removing the allowances would result in increased net earnings of nearly $73,000 per month.[90] Far from suggesting that the company's decision was motivated by some iniquitous desire to sacrifice sales and profits in order to reinforce the oligopolistic policies of the other major refiner-marketers, the document clearly shows that the decision was prompted by a simple desire to maximize revenues in the short run.

Texaco Canada documents also establish that its decisions to institute allowance programmes were motivated by the same competitive objective: to maximize short run revenues, not to forego short run revenues in an effort to discipline or eliminate independents. As the Green Books indicate, in the late spring and early summer of 1972, competitive pressure forced Texaco Canada to cut prices by reinstituting its allowance programme in Ontario.[91] The Director asserts that this decision was directed against independents with "disciplinary or predatory intent."[92] However, contemporaneous documents clearly indicate not only that the company's decision was supported by its calculations that reinstituting the allowance programme would maximize short run revenues, but also that the decision was necessary to counter the lower prices of other refiner-marketers as well as independents.

> The attached map shows the location of 26 unbranded *and branded* outlets presently selling at reduced pump prices as low as $0.459 as compared to our Retailers' price of $0.539 for Fire Chief Gasoline. In addition, you will note there are eight car washes offering various cross-merchandising deals of free washes or at reduced prices with a gasoline purchase.
>
> * * * * * * * * *
>
> It is our recommendation that we extend our Retailers price assistance of $0.021 per gallon to enable them to post a pump price of $0.489. *This*

> *will allow them to be competitive with Shell* and Supertest Car Wash currently selling at this price, and will establish our usual spread of $0.03 per gallon above the innumerable unbranded outlets posting $0.459.[93]

In the same document, Texaco Canada estimated that the allowance programme would result in increased annual revenue of nearly $19,000.[94]

The Director overlooks data in the seized documents indicating that, when instituting allowance programmes, refiner-marketers recouped their costs.

A 1971 Shell document, for instance, clearly shows that its revenues significantly exceeded its total costs on the 53 million gallons it sold through retailers under a three cents per gallon allowance programme.[95]

(iv) Refiner-Marketers' Use of Allowance and Consignment Programmes

The Director aims some particularly harsh criticisms at refiner-marketers' decisions to introduce price cuts through consignment and temporary allowance programmes; apparently the Director views such programmes as more insidious forms of predation than a simple cut in the dealer tank wagon price. Under a temporary allowance programme, a refiner-marketer would offer its retailers a discount that was a function of the pump price: the lower the price, the greater the discount.[96] Thus, a retailer operating under a temporary allowance programme retained the ability to set the pump prices of gasoline sold at his station. Consignment, of course, allows the refiner-marketer to set retail prices directly.

While the Director criticizes both allowance programmes and consignment selling, he apparently views the latter as the greater of the two evils. According to the Green Books, refiner-marketers were dissatisfied with temporary allowance programmes because retailers often set prices different from those that their suppliers sought to establish in response to discounter price competition.[97] In order to increase control over its retailers' pricing decisions, the Director alleges that a refiner-marketer would adopt a consignment programme under which its retailers were paid commissions for each gallon sold and the refiner-marketer would retain ownership of the gasoline and authority to set pump price. The Director claims that the use of such consignment programmes was further evidence of the predatory nature of refiner-marketers' price cuts.

The Director's criticism of both allowance and consignment programmes is another example of his curious tendency to mislabel pro-competitive efforts by refiner-marketers to reduce pump prices as anti-competitive practices. Both programmes are forms of maximum vertical price restraints beneficial to consumers and, as such, are merely devices through which a branded retailer and his supplier agree to share the burden of responding to competitive pressures in the market. As long as the prices set by such programmes are not unreasonably low, they are nothing more than methods used by refiner-marketers to introduce legitimate price cuts and consequently should not be considered anti-competitive.

That refiner-marketers tended to implement these price cuts through consignment and allowance programmes, rather than through reductions in wholesale price, is neither surprising nor inherently anti-competitive. Unlike a wholesale price reduction, consignment and allowance programmes ensure that reductions in the wholesale cost of gasoline will be passed on to consumers in the form of lower retail prices. Indeed, documents seized by the Director reveal that these programmes were motivated, in part, by refiner-marketers' perceptions that a simple reduction in wholesale price would not result in a commensurate reduction in retail

price because retailers, viewing the decrease in wholesale price as an opportunity to improve retailing margins, would absorb part of the wholesale price decrease instead of passing it on to consumers.[98]

Such price rigidity is a well known phenomenon in retail markets,[99] and its elimination through maximum vertical price restraints benefits consumers through lower retail prices.[100] Although consignment and allowance programmes clearly achieved this result, the Director nevertheless views them as anti-competitive because, through them, refiner-marketers were able to cut prices only temporarily and to limit the geographic scope of price cuts. Each of these objections is discussed below.

(v) Temporary Price Reductions

In an effort to bolster the argument that the majors behaved anti-competitively, the Green Books repeatedly stress that the temporary nature of refiner-marketers' price cuts is evidence that they did not intend to engage in legitimate competition, but instead sought only to discipline discounters. But that begs the question: what is legitimate competition?

As explained above, price cutting is always legitimate competition unless the price cutter lowers his prices to an unreasonably low level as defined by an appropriate measure of cost, having the effect or with the intent of lessening competition.

The Green Books, however, suggest that through temporary price cuts, refiner-marketers were able to avoid the need for continual price cuts in response to new entry by developing reputations that they would price aggressively in response to entry.[101] According to the Green Books, this reputation signalled to discounters that they could not expect to enter the market and profitably price at levels that threatened refiner-marketers' pricing structures. Thus, even though entry may have been relatively easy, the Green Books suggest that refiner-marketers were able to prevent that entry effectively and to avert the continual price wars such entry might stimulate.

As noted above, this signalling argument simply does not square with the facts: independents entered repeatedly, constantly threatened refiner-marketers' positions, and increased their market share. Moreover, the argument does not make sense in terms of economics or sound competition policy. The notion that, by pricing aggressively and consequently developing a reputation for pricing aggressively, a company is somehow behaving anti-competitively literally stands competition theory on its head.

Sound competition policy should seek to encourage aggressive pricing. Any other rule would place a company in the untenable position of being subject to sanctions simply because competitors think it will react aggressively, albeit competitively.

Indeed, a reputation for vigorous but legitimate price competition should be considered desirable because it will deter inefficient competitors from entering the market in the hope that existing dominant companies will maintain a price umbrella over them. Such conduct may also deter entry that would create or exacerbate excess capacity. Furthermore, any attempt to establish that such reputations existed and that they were actively sought by refiner-marketers (and not simply perceived by potential entrants in an effort to enlist the government's assistance to shield them from the rigors of price competition) would draw courts and agencies into highly subjective evaluations of market participants' intent — evaluations that are likely to be imprecise, misleading and non-productive.

Finally, the Director does not explain why the fact that a price cut is temporary is in any way relevant to whether it is pro-competitive or anti-competitive. Since the supply and demand characteristics of any market, and the retail gasoline market in particular are subject to constant and rapid change, it should hardly be surprising to observe that price movements (both up and down) are frequent occurrences. In this sense, all price cuts may be considered temporary. Yet the Director offers no reasoned way of distinguishing between those price cuts that are temporary as a natural result of changing market conditions, and those that are temporary and therefore somehow illegitimate.

Moreover, the Director never defines what constitutes a temporary price cut. For instance, is a one week price cut temporary while a one or two month price cut is not? Or must a company, having decided to cut its prices, be locked into a price cut for an even longer period, regardless of changing market conditions? The Director, of course, provides no answers. He also overlooks the perverse effect of his reasoning: any rule condemning price cuts merely because they are temporary will have a chilling effect on companies' decisions to cut prices, thereby promoting umbrella pricing.

(vi) Local Regions Affected by Independent Competition

The Director claims that refiner-marketers' pricing policies were discriminatory because they sought to restrict their lower prices to the regions affected by independent competition. For example, Texaco Canada divided markets into trade areas (areas in which it is believed that stations were in direct competition with each other) and analyzed how prices in one trade area affected prices at surrounding service stations. Thus, when Texaco Canada implemented a temporary allowance programme, it would offer discounts only in trade areas affected by low priced competition. Similarly, when a defined trade area proved to be larger than the market affected by low priced competition, the company occasionally instituted consignment programmes at the station or stations so affected.[102]

The Director denounces allowance and consignment programmes as forms of price discrimination. He contends that "[i]n and by itself, price discrimination is a monopolistic practice and a manifestation of the monopolistic situation which the majors had created."[103] He further contends that refiner-marketers carefully controlled the areas affected by price cuts because that strategy would least "undermine the stability of the oligopoly."[104]

These charges are based on a fundamental misunderstanding of the economics of price discrimination. The market for retail gasoline is highly localized: a consumer is unlikely to travel great distances (and consume significant quantities of gasoline) to find a lower price or better service. Thus, when a low priced seller opens a station at one end of a large city there is no reason to expect a significant change in market conditions at the other end of town. However, stations located across the street from the low priced station will experience a sharp change in the market environment and stations located a bit further away will experience a more moderate change in market conditions.

If all stations were independently owned, with all control over prices vested in individual station owners, no one would question the propriety of a station unaffected by a price cut keeping its prices higher than a station that was; indeed, it would not even be called price discrimination. The case is no different where a company owning many different retail outlets faces independent entry at one location and finds that market conditions do not change identically at all its stations. There is simply no reason to impose on it the obligation to

reduce price equally at all stations. The rational and economically proper response is to reduce price at each station only by the amount required in order to adjust to changed supply and demand conditions. This is precisely what Texaco Canada did, and allowance and consignment programmes are merely examples of the carefully designed programmes it used to institute only those price changes that were consistent with market conditions.

Accordingly, the tendency of refiner-marketers to use consignment and allowance programmes to lower prices in areas where they faced independent competition does not suggest that these programmes were "predatory tools".[105] As long as a company's price is not unreasonably low, as determined in relation to an appropriate measure of cost, the fact that it may charge a higher price elsewhere where it faces less price competition (and perhaps more service competition) is irrelevant to the issue of predation. To require companies to implement price cuts on an all or nothing basis would serve only to impose a chilling effect on price cuts, thereby creating a price umbrella for inefficient market participants. Indeed, the Director's condemnation of refiner-marketers' efforts to close the umbrella of high prices that encouraged independent entry suggests that, contrary to his most recently expressed intent, the Green Books are premised on the assumption that protectionist policies are preferable to pro-competitive policies in the marketing sector.

C. The Second Brand Allegations

(i) The Growth and Efficiency of Second Brands

During the late 1960's, some major refiner-marketers responded to the growing number of price conscious consumers by supplementing their branded full service networks with chains of stations operating under a different trade name and offering lower priced gasoline without all the amenities of the typical branded full service station. These types of stations, referred to by the Director as second brands, have increased in number over the past decade and, for those refiner-marketers choosing to use them, have become a primary vehicle for catering to the growing market segment of price conscious consumers. Texaco Canada, for instance, increased the number of its Regent second brand stations from 23 in 1971 to 52 in 1981, an increase of 126 percent. Similarly, publicly available information indicates that the number of Beaver outlets (Shell's second brand) grew by 25 percent between 1976 and 1981 while the total number of Shell's branded stations fell by over 20 percent.[106]

Second brands also have enjoyed remarkable volume economies, exceeding those of the independents in many areas where they compete. Indeed, they have become market leaders in generating volume throughput economies in many areas. Of course, the high throughput attained by second brands translates into lower unit costs. Not surprisingly, therefore, second brands have become a profitable method of marketing gasoline for those refiner-marketers who have adopted them as a marketing strategy.

(ii) Second Brands and Predation

Supplementing a branded full service offering with a second brand designed to meet the needs of a growing number of price conscious consumers is a perfectly rational means for any gasoline marketer to adapt to changing consumer preferences. Brand segmentation enables those companies which have made substantial investments to establish their primary brand names to attract business from price conscious consumers while preserving the integrity of their brands for those consumers who still prefer full service.

The Director, however, alleges that second brands were used as predatory weapons against independent marketers. Although the Director recognizes the legitimate reasons for opening second brand stations,[107] he nevertheless concludes that the second brands introduced by Imperial, Shell and Texaco Canada in the late 1960's and early 1970's were predatory in nature because they were intended only as temporary devices to discipline independent marketers and at times were operated at a loss.

The first error in this conclusion is that even if the second brands were intended to be a temporary response, that does not establish that they were predatory, any more than a temporary price cut to meet an independent's price implies predation. But the problems with the Director's allegations run far deeper. As with his allegations that use of consignment and allowance programmes by refiner-marketers was predatory, his allegations that second brands were predatory arise out of a misunderstanding of the competitive processes at work in the Canadian retail gasoline market.

The Director's characterization of second brands as temporary devices designed to preserve refiner-marketer's full service branded networks simply does not square with the facts: as explained above, the number of second brand stations in Canada has increased over the past decade and, at the same time, the full service branded networks, far from being preserved, have undergone substantial rationalization. Unless the Director is prepared to make the blatantly protectionist argument that independent marketers are somehow exclusively entitled to possession of the growing market segment of price conscious consumers free from competition by the major refiner-marketers, his second brand allegations have no place in this inquiry.

Similarly, the Director's reliance on documents indicating that second brands were intended to make life more difficult for independent marketers is misplaced. As previously explained, such expressions of intent are a wholly inappropriate guide for determining whether a given marketing practice is predatory. Since refiner-marketers used second brands as a method of competing head on with the independents for sales to price conscious consumers, it should hardly be surprising to find that refiner-marketers, in developing second brand strategies, tended to view independents as their primary competitive threat. Analysis of the motives behind these views provides no reasoned means of distinguishing predatory conduct from a perfectly legitimate effort by refiner-marketers to adjust their marketing strategies in order to compete more effectively.

The Director presents no evidence in the Green Books that gasoline at second brand stations was sold at unreasonably low prices.

As noted above, second brand operations have become a very profitable marketing strategy for those refiner-marketers using them. In short, the history of second brands reveals them to be precisely what rational competitive processes would predict them to be: a legitimate means for branded full service oriented marketers to adjust their offering to appeal to the growing number of price conscious consumers.

The continued existence and success of second brands over the past decade is the best refutation of the Director's conclusion that they were predatory devices designed to eliminate or discipline the independents. Moreover, their persistence and success could have been predicted based upon the seized documents. Those documents clearly show that Texaco Canada's entry into the second brand market was prompted by a desire "to get a share of this

'price' market.''[108] Indeed, its expansion of second brand operations is a prime example of intense competition among refiner-marketers, for its second brand activities were a response not only to the growth of independents but also to vigorous second brand activities by Shell and Imperial.[109] The seized documents reveal that both of those companies recognized that the discount market would continue to grow and therefore perceived that continued participation in that market was essential. Thus, competitive pressure from both the independents and the second brands of Shell and Imperial compelled continued second brand activity by Texaco Canada.

The Director bases his allegation that Texaco Canada's second brand strategy was temporary primarily on the testimony of Mr. Krantz, who stated at the 1975 Toronto hearings that the second brand strategy was short run and was intended to allow the company ''to maintain our volumes at a given service station area until we could develop some other type of marketing facility under our own brand name.''[110] As noted above, the Regent stations are alive and well today, more than seven years after Krantz' testimony. Moreover, Krantz' statement merely indicates that Texaco Canada realized that the discount market would continue to grow and that second brands would be used to fill this competitive void in the Texaco marketing system until the Texaco branded network was reworked to better match the needs of the growing segment of price conscious consumers. Thus, the statement is nothing more than a reiteration of textbook marketing strategy. Indeed, it clearly demonstrates that Texaco Canada recognized that short term predatory strategies to discipline the independents or drive them from the market were futile and that participation in the discount market through a second brand and, in time, a streamlined branded network (the response that rational competition would predict) was the only answer.

D. Refiner-Marketers as Suppliers Of Independents: The Price Squeeze Allegations

Although the major refiner-marketers distributed the bulk of their gasoline through their own networks of retail outlets, each also distributed a portion of its volume through independent resellers. As previously explained, each of the refiner-marketers followed a different policy with respect to the volume and frequency of sales to independents. Moreover, the general trends that have taken place in the Canadian wholesale gasoline market over the past three decades have followed precisely the pattern that normal competitive processes would predict. During the 1950's and 1960's when excess refining capacity existed in Canada and plentiful supplies of imported product were available, independent marketers were able to obtain significant discounts off the dealer tank wagon price. During the 1970's, however, when demand began to catch up with refining capacity, the tightening world oil market placed upward pressure on gasoline prices. When National Energy Board policy restricted the flow of imported product, the discounts that independent marketers were able to obtain narrowed.

Nevertheless, the Director alleges that the major refiner-marketers coordinated their ''wholesale pricing policies to squeeze the independents'' by ''forcing the independents' wholesale prices upwards at the same time as the majors reduced or held their own retail prices constant.''[111] As with his other allegations concerning allegedly anti-competitive practices by refiner-marketers, the Director's squeeze theory is both analytically and factually flawed.

The Director adopts a simplistic, and economically inaccurate, theory concerning price squeezes. The Director concedes that normal market forces may cause wholesale price

increases. But he shies away from the logical consequences of this admission by reiterating his unfounded proposition that retail prices were set in a predatory manner.[112] The fact is that a price squeeze (*i.e.*, a narrowing of the margin between wholesale and retail prices) can easily occur in perfectly competitive markets, and in the absence of vertical integration, as a result of certain changes in costs and/or demand. Moreover, the same changes that can lead to price squeezes in competitive non-integrated markets will also lead to price changes in markets (like the gasoline market) where there is greater concentration at the supply level, and the suppliers are partially integrated into retailing.

Gasoline retailers may experience a price squeeze as a result of natural competitive processes under any of the following circumstances:

- An increase in refining costs due to an increase in the cost of crude oil, or any reduction in the supply of crude oil, will lead to a wholesale price increase and higher retail prices. But in a competitive market retail prices would not ordinarily increase as much as wholesale prices.
- A decline in consumer demand for gasoline will have the same result.
- An increase in price competition (and a commensurate decrease in service competition) at the retail level will lower the retail price, while the wholesale price will either remain the same or, if the lower retail price increases demand and the increased supply entails increased cost, will increase.
- A squeeze may also result from changes in wholesale and retail markets that occur more or less simultaneously, as where price competition increases at the retail level while refining costs increase due to an increase in the price of crude oil.
- Where the supply of refined gasoline is distributed in several retail markets, an increase in demand in one market may lead to an increase in the general wholesale price, which will squeeze retailers in those markets where demand has not increased.

Each of the situations outlined above has occurred at various times in the gasoline market. The so called Ontario "price squeeze of 1967-68"[113] in fact appears to be a good example of how increased costs at the refinery level and increased price competition in various retail markets occurring simultaneously can result in a narrowing of wholesale and retail margins that stems not from a coordinated effort by refiner-marketers to squeeze the independents but from natural changes in market supply and demand conditions.

In late 1967 and early 1968, wholesale prices in Ontario were "unduly low in relation to comparative crude and transportation costs."[114] This shift in supply conditions, of course, placed an upward pressure on wholesale prices, and, as the Green Books observe, Shell and Gulf increased their tank wagon prices in early 1968. Some Shell and Gulf retailers passed on this increase in the form of a retail price increase, but others did not.[115] Those retailers who decided not to pass on the wholesale price increase presumably were responding to retail demand conditions[116] and, in essence, decided that, in order to maintain volume and maximize profits, they must narrow their margins. Their decisions, of course, necessarily

squeezed the margins of any competing independents who purchased from Shell or Gulf at a fixed discount off tank wagon, but that squeeze was a natural result of changes in market demand and supply conditions. Moreover, the decisions were made at the outset by individual retailers without the benefit of any support programmes by their suppliers.

Thus, the entire 1968 Ontario episode began with a natural competitive squeeze. Not surprisingly, Texaco Canada reacted to this situation by increasing its tank wagon prices (because it too was experiencing increased cost pressures at the refining level) and instituting allowance programmes where necessary to respond to competitive retail conditions. While the Director makes much of the fact that the necessary result of this strategy was to squeeze the independents, he overlooks two crucial points. First, all market participants experienced a squeeze, a squeeze that, as explained above, was triggered by the normal forces of supply and demand in the wholesale and retail markets. Second, the Director conveniently ignores the fact that the responses of the major refiner-marketers — far from being coordinated — were dissimilar.[117]

The other price squeeze allegations discussed in the Green Books occurred in the 1970's. As with the allegations concerning Ontario in 1967-68, however, the Green Books' allegations of anti-competitive squeezes during the 1970's are based on factual inaccuracies and faulty analysis of the documentary evidence on which it relies.

During the early 1970's in Ontario, Imperial and Shell (the Director alleges) ''led the squeeze against the independents in the wholesale sector.''[118] According to the Green Books, Imperial's and Shell's efforts could be effective only if they succeeded in removing ''Texaco's ability to supply product to the independent market.''[119] The Green Books further allege that Imperial and Shell accomplished this objective by increasing Texaco's processing fees in 1973 and 1974 to a level ''sufficiently high to preclude Texaco from supplying jobbers and wholesalers.''[120]

The Director's assertions are wrong in two respects. First, the Director completely ignores the necessary implication of his allegation: the activities of the major refiner-marketers in the wholesale market were not coordinated or harmonized, for Texaco Canada was not a willing participant in any purported understanding between Shell and Imperial (assuming that such an understanding existed) to apply a wholesale price squeeze on independent margins. Had the company been part of such an understanding it would not have been reselling refined product to discount operators. Hence, if the Director's characterization of Shell's and Imperial's motives is accurate,[121] he is in essence conceding that the wholesale practices of refiner-marketers were not coordinated but conflicting, and that Texaco Canada acted like a vigorous competitor whose interests were quite different from those of Shell and Imperial.

Second, the Director's description of Texaco Canada's response to increased processing fees is simply inaccurate. Regardless of what Imperial's or Shell's objectives were in increasing Texaco Canada's processing fees, the increased fees did not preclude the company from supplying independents. Contrary to the Director's assertion, Texaco Canada's Canadian Tire and the United Co-op accounts were not ''critically affected.''[122] The same document on which the Director relies for this assertion clearly states that the earliest these accounts could be terminated was 1975, and by that time, Texaco Canada planned to have new refinery capacity available in Ontario.[123] Consequently, it was recommended that the company

...should retain business like Canadian Tire and Co-Op until we get through this difficult time.

* * * * * * * * *

It is of the utmost importance that we obtain additional capacity in Ontario and that our objective be to have it ready as soon as possible in '75, so that we can retain our present share of the market at the least cost.[124]

Texaco Canada honoured its contracts with Canadian Tire throughout the 1972-75 time period and although its new Ontario facility did not come on-stream until 1978, the company nevertheless extended its contracts with Canadian Tire and continues to supply it to this day. Indeed, Texaco Canada's sales to Canadian Tire have doubled throughout the last decade.

The Director's effort in Appendix D in Volume VI of the Green Books to demonstrate the existence of sporadic post 1973 price squeezes in Toronto, Montreal and Ottawa is similarly misguided. Even if the Director's data and methodology were accurate,[125] they do not suggest that refiner-marketers engaged in anti-competitive price squeeze behaviour in the years since 1973. As previously explained, when a market is subject to a supply shortage at an upstream stage of production, natural market forces can cause retailers to be caught in a squeeze. Needless to say, the OPEC price increase of 1973 caused a sharp increase in the price of crude oil, a trend that, with the help of Canada's energy policy, has continued throughout most of the 1970's and early 1980's. Hence an important condition for a purely competitive squeeze was satisfied.

Moreover, the data in Table D-I clearly reveal a general upward trend in the retail price of gasoline charged at refiner-marketers' own stations. This upward trend in the retail prices of refiner-marketers' outlets came at the same time there was an upward trend in the wholesale price of gasoline, which is characteristic of a competitively induced squeeze.

The Director's squeeze allegations suffer from a more basic flaw, one which underlies his pricing and second brand allegations as well: the Director fails to take into account the changes that were taking place in gasoline retailing during the 1970's. As a result, he once again has mistaken evidence of the pro-competitive process of change for anti-competitive behaviour.

As previously explained, gasoline retailers in general, and the major refiner-marketers in particular, have responded to changing consumer preferences by reducing the number of retail outlets, increasing volume throughputs, de-emphasizing full service and implementing lower cost forms of retailing such as self service. During the same time period, the rising cost of crude oil has placed almost constant upward pressure on wholesale price. The inevitable result of these simultaneous trends should be obvious: retail margins have been narrowed both in relative terms (the percentage of the price of gasoline accounted for by retailing operations) and in real terms. In short, all retailers have experienced increasing pressure on their margins. As major refiner-marketers have moved toward less service oriented, more price oriented marketing strategies, independent marketers have, of course, seen the spread between their wholesale prices and refiner-marketers' retail prices narrow. This squeeze, however, is not the result of anti-competitive behaviour, but the result of refiner-marketers' pro-competitive responses to changing consumer preferences.

E. The Increasing Competitive Pressures Upon the Branded Full Service Retailer

As noted above, consumer preferences shifted in the late 1960's and 1970's and became more diverse. In restructuring their retail offerings to respond to these changing market conditions, major refiner-marketers found it necessary to shift gradually from retail networks composed almost exclusively of branded full service retailers, to a numerically smaller yet more diverse array of outlets composed of second brand stations, self service facilities, cross merchandising outlets and fewer branded full service outlets.

Different types of marketing outlets require different methods of operation. Thus, refiner-marketers relying on a branded full service network traditionally have distributed gasoline through outlets operated by branded lessee retailers or branded retailers who owned their own stations. This form of supply retail relationship is an effective means of operating branded full service stations because the retailer's expertise in running an automobile repair operation and developing an individual relationship of trust and loyalty with the customer is peculiarly suited to a branded full service strategy. Independent chain marketers, on the other hand, historically have relied upon direct operation through salaried personnel. This form of operation is well suited to a chain marketer who chooses to offer little or no service and to compete primarily in price because it allows him to control both his primary marketing tactic, price, and his cost.

As refiner-marketers in Canada restructured their retail networks to include discount style outlets such as second brands and self service facilities, it should hardly be surprising that they, like the independent chain marketers, sometimes chose to operate those outlets in a direct fashion with salaried or commission agent personnel. As these low priced outlets grew in number and in consumer appeal, however, the refiner-marketers found themselves accused by some of their branded retailers and the Director of engaging in anti-competitive practices by pricing at levels that make it difficult for the branded retailers to compete.

It is apparent that, in presenting the current complaints of some branded retailers, the Director has come full circle: in the Green Books, the Director criticized the major refiner-marketers for engaging in practices designed to preserve their full service branded networks by disciplining independent marketers. As refiner-marketers responded and adapted their retail networks not only to satisfy the needs of the price conscious market segment but also to continue to serve the needs of the significant number of consumers who still prefer full service, the Director now seems to be accusing refiner-marketers of engaging in unfair competitive practices against their own branded retailers. In short, the Director now criticizes refiner-marketers for implementing strategies that, in Volume VI of the Green Books, he roundly criticized them for failing to implement.

The anti-competitive significance of this latest allegation against refiner-marketers is difficult to grasp. On its face, it appears to be an allegation that refiner-marketers are acting predatorily against their own branded retailers. Such an allegation, however, defies logic. Although branded full service retailers have decreased in number over the past decade, those retailers still form the primary vehicle through which refiner-marketers sell gasoline.[126] A refiner-marketer does not view its branded retailers as its competitors but rather as partners in the marketing and distribution of its product.

It should hardly be surprising, then, that the Director has not articulated any theory of anti-competitive behaviour that would explain why a major refiner-marketer like Texaco

Canada, which distributes much of its gasoline volume through branded retailers, would purposefully seek to drive its own retailers out of business or, through increased tank wagon prices, compel those retailers to sell gasoline at uncompetitively high prices.[127] The simple fact is that every litre of gasoline that a major refiner-marketer like Texaco Canada does not sell because of its retailers' high prices or the demise of one of its retailers is a litre of gasoline forfeited to one of its competitors, either another refiner-marketer or an independent marketer.

There is, however, a rational and pro-competitive explanation for the increasing pressures currently faced by branded retailers. As noted above, the shift in consumer preferences toward less service oriented, more price oriented retail outlets has forced the major refiner-marketers to restructure their retail networks with increased emphasis on price oriented marketing strategies such as second brands, self serves and cross merchandising operations. The inevitable result of this restructuring process has been a thinning of the ranks of the branded full service retailers. Those who remain can survive only by increasing their volume throughput economies while continuing to cater to the needs of the significant number of consumers who still prefer full service. And many Texaco retailers have not only survived but prospered by continuing to offer full service while increasing their volume throughputs.

Other retailers have not fared as well because they have been unable to keep pace with changing competitive conditions and to increase their volume throughput sufficiently to cover the increasing costs of operating a traditional full service outlet. These situations are, of course, painful for both Texaco Canada as a refiner-marketer and for the retailer. In such situations, however, the competitive forces of the market compel the company to respond. How it will respond depends in turn upon its perception of the underlying cause for the retailer's poor performance. For instance, a station may become unprofitable for both the retailer and the company because it is located in an area where consumer demographics and the success of surrounding price oriented outlets (regardless of whether these outlets are operated by independents or other refiner-marketers) indicate that the only type of retail gasoline outlet that can be operated profitably is one offering low price and little or no service. In such cases, it may well convert the outlet to Regent, self service or some form of cross merchandising operation.

In other cases, the troubled retailer may be losing gasoline volume due to heavy competition from price oriented outlets while still enjoying a profitable service bay operation. In these situations, the company can try to encourage use of self service to lower prices and increase gasoline sales while maintaining the retailer's service bay operation.

In still other cases, a Texaco full service retailer may simply be pricing at levels which, coupled with his service bay income, provide what he feels is an adequate income but do not generate sufficient gasoline volume to meet Texaco Canada's objectives; in short, the retailer is satisfied with selling less gasoline than the company wishes him to sell. In these situations, Texaco Canada may have to consider enforcement of minimum sales provisions in lease agreements or other options.

Finally, there are situations where, due to such factors as obsolete facilities, limited volume potential, changing traffic patterns, or poor management by the retailer, a station is unprofitable to both the retailer and to Texaco Canada. In the company's view, none of the price cutting tactics listed above will generate sufficient increased volume to make the station profitable. In these circumstances, Texaco Canada can, of course, terminate its relationship

with the retailer if the company owns the station itself. Alternatively, if the retailer owns the station and wants to continue to use it for gasoline sales, Texaco Canada may consider terminating the supply relationship. In the process of streamlining its network in response to changing competitive conditions, the company has faced such situations with increasing frequency in the past few years. Nevertheless, such situations, for the most part, have been resolved amicably. Indeed, many former Texaco retailers have remained in business either by becoming the branded retailer of another refiner-marketer or by becoming independent marketers.

Thus, the problems currently faced by some branded retailers both at the pump and in their contractual relationships with their refiner-marketers suppliers are, far from being the result of anti-competitive practices, the natural and inevitable result of a pro-competitive effort by refiner-marketers to adjust their retail networks in response to changing market conditions. The Director's characterization of these problems as evidence of anti-competitive behaviour demonstrates his misunderstanding of the competitive processes at work in the retail gasoline market.

EXHIBIT III-I

Form E. O. 46
(Revised Feb. 3/72)

Date _____

STATEMENT TO SUPPORT RECOMMENDATION TO ASSIST RETAILERS UNDER CONSIGNMENT OR RETAILER ASSISTANCE PLAN

District _____ Serving Bulk Station _____

Marketing Area _____

Number of Texaco Retail Outlets in Marketing Area _____

Total Annual Volume of these Outlets (Previous Year) _____ Gallons

Present Posted Pump Price: Sky $ _____ Per Gallon

Fire $ _____ Per Gallon

(1) **Present Profit to Company:**

Posted D.T.W. Price (Fire Chief) ..... $ _____

Less: Laid Down Cost at Bulk Station (Form 2100) ..... $ _____

S/O Truck Cost or Consignee Commission ..... $ _____

Arbitrary Overhead ..... $ _____

Present Assistance ..... $ _____

Gross Profit Per Gallon ..... $ _____

(2) **Projected Annual Sales at Present Posted Retail Pump Price:** _____ Gallons

(3) **Total Revenue to Company based on Projected Annual Sales and Gross Profit Per Gallon as Shown Above:**

_____ Gallons @ $ _____ Profit Per Gallon $ _____ (A)

(4) **Recommended Posted Pump Prices:**

Sky: $ _____ Per Gallon / Fire: $ _____ Per Gallon

(5) **Estimated Total Annual Volume Based on Reduced Pump Prices:** _____ Gallons

(6) **Profit to Company at Reduced Pump Prices:**

Previous Gross Profit (as above) ..... $ _____ Per Gallon

Less: Additional Company Assistance to Retailers ..... $ _____ Per Gallon

Revised Gross Profit Per Gallon ..... $ _____ Per Gallon

(7) **Total Revenue to Company at Reduced Pump Prices Based on Revised Estimated Volume and Reduced Gross Profit Per Gallon:**

_____ Gallons @ $ _____ Profit Per Gallon $ _____ (B)

(8) **Inc. / (Dec.) in Annual Product Revenue to Company by Recommended Changes in Pump Prices** (A vs B) ..... $ _____

(9) **Inc. / (Dec.) in Rental Revenues Based on Revised Estimated Volume:**

A. Rentals Recoverable _____ Gallons @ $ _____ = $ _____
(C/O S/S and L L/D S/S)

B. Rentals Payable _____ Gallons @ $ _____ = $ _____
(L C/L S/S and Third Party) If there is an established floor tied to gallons)

Total A – B ..... $ _____

(10) **Total Inc. / (Dec.):** Item 8 + 9 ..... $ _____

(See over for Current Retail Sales)

Approved: _____
Assistant Division Manager (Retail) Date

Approved: _____
District Manager Date

EXHIBIT III-II

Percentage Volume on Allowance by Region Among Majors

	Percentage volume				
	1971	1972	1973	1974	1975
Atlantic					
Shell	—	1	2	1	3
Gulf	—	—	0	—	—
Texaco	—	1	0	1	3
Quebec					
Shell	64	55	19	0	16
Gulf	5	7	17	7	0
Texaco	0	85	0	40	71
Ontario					
Shell	22	26	34	28	59
Gulf	—	—	—	—	—
Texaco	2	5	0	5	10
Prairies					
Shell	0	1	4	23	20
Gulf	—	—	0	0	1
Texaco	—	2	—	6	9
British Columbia					
Shell	—	—	—	1	17
Gulf	—	—	—	0	29
Texaco	—	—	—	—	3

Source: Appendix A of Volume VI, Tables 1, 5, & 9.

Notes:

1) Dashes have been inserted where the Green Books supply no data. The Tables in the Green Books, however, specifically state that Gulf did not provide data for Ontario.

2) Imperial is omitted because the data reported for it is not in a form suitable for comparison.

EXHIBIT III-III

Percentage Volume on Consignment by Region Among Majors

	Percentage volume				
	1971	1972	1973	1974	1975
Atlantic					
Shell	10	8	6	9	7
Gulf	—	0	0	0	4
Texaco	—	—	0	1	2
Quebec					
Shell	17	17	20	15	13
Gulf	82	79	47	28	47
Texaco	8	0	6	0	14
Ontario					
Shell	7	5	5	6	5
Gulf	17	24	38	34	51
Texaco	2	0	7	1	1
Prairies					
Shell	1	2	5	17	3
Gulf	1	1	4	8	11
Texaco	—	—	1	1	4
British Columbia					
Shell	4	4	6	4	3
Gulf	—	—	—	—	—
Texaco	—	—	—	1	3

Source: Appendix A of Volume VI, Tables 2, 6 & 10.

Notes:

1) Dashes have been inserted where the Green Books supply no data. The Tables in the Green Books, however, specifically state that Gulf did not provide data for British Columbia.

2) Imperial is omitted because the data reported for it is not in a form suitable for comparison.

EXHIBIT III-IV

[reproduction]

DIVISION OFFICE
Don Mills, Ontario.
June 5, 1972.

MARKETING
Retailer Assistance Plan.

Mr. R. Krantz
EXECUTIVE OFFICES.

We are attaching a submission in support of our recommendation that we extend price assistance to our 16 Retailers in the City of St. Catharines, Ontario.

The attached map shows the location of 26 unbranded and branded outlets presently selling at reduced pump prices as low as $0.459 as compared to our Retailers' price of $0.539 for Fire Chief Gasoline. In addition, you will note there are eight car washes offering various cross-merchandising deals of free washes or at reduced prices with a gasoline purchase.

This competition is having a serious effect on our sales, and the attached summary of sales results for the month of April 1972 indicates that in total our stations experienced a decrease of 23.1% for the month. The losses at some stations have reached the point where they will soon become non-viable locations unless corrective action is taken to stop the steady decline in sales.

It is our recommendation that we extend our Retailers price assistance of $0.021 per gallon to enable them to post a pump price of $0.489. This will allow them to be competitive with the Shell and Supertest Car Wash currently selling at this price, and will establish our usual spread of $0.03 per gallon above the innumerable unbranded outlets posting $0.459.

The attached Form E.O.46 forecasts that with a more competitive price our stations will produce an annual volume of 2,600,000 gallons, for an increase of 412,000 or 18.8% over last year. Without the recommended assistance sales are expected to drop to 1,750,000 gallons a decrease of 438,000 or 20%. The Form E.O.46 also indicates that with the estimated volume increase there will also be an annual increase of $18,755.00 in Company Revenue.

The sales losses are more severe at some locations than at others due to the location of the outlets selling at reduced pump prices, and it is possible that certain Retailers may prefer to remain at full price. However we must naturally offer the same assistance to all Retailers in this market and on this basis have prepared a Form S-398 for each station.

We do not feel we can afford to sustain these sales losses any longer, and must take action to restore our share of this market. For your information Mr. F. D. Connors has personally surveyed the price situation in St. Catharines and is fully in agreement with this recommendation.

Your early approval and return of the attached Forms S-398 will be appreciated.

A.D.M. (R)

GJI-el

cc: F. D. Connors — Division Office.

Attachments:
Map
Forms S-398
Form E.O.46
List of April Sales.

NOTES TO PART III

1. R. Bertrand, *The State of Competition in the Canadian Petroleum Industry* (1981) (hereinafter referred to as the Green Books or designated by volume number).
2. Vol. VI at 4.
3. As one competition scholar has noted, ''[e]fficiency does not arise solely from cutting costs. It also arises from offering products that people want more, even if those products cost more to produce.'' R. Bork, *The Antitrust Paradox* 319 (1978).
4. See Part II *supra*.
5. The study is contained in documents #56528-56506 (Texaco).
6. The Texaco study attributed most of Shell's increased gallonage to this development programme:

> We must emphasize on the effects Shell's real estate activities (new sites, major rehabs and face-liftings) will undoubtedly have in the coming years. It is noticeable, from this report, that an important percentage of Shell's increase is due to their development policy, and if we remain inactive because of limited funds, the gap between us will amplify.

   Document #56555 (Texaco).
7. Documents #56543-48 (Texaco). Texaco attributed the high calibre of Shell retailers to Shell's tendency to lease stations ''to some of [Shell's] employees and also to people closely associated with the petroleum industry''. Document #56547 (Texaco). These retailers enjoyed ''sales increases above average and in the long run, they will contribute to Shell's calibre of lessee-dealers.'' *Id.*
8. Documents #56550-53 (Texaco).
9. Vol. VI at 202-18.
10. See Documents #46255-56, 56745-48 and 58383-94 (Texaco).
11. See pp. 129-130 *infra,* and documents cited therein.
12. See Exhibit III-1.
13. Document #58347-48 (Sept. 2, 1971 Texaco).
14. Documents #55933-34 (Sept. 24, 1971 Texaco); #55920-25 (Oct. 27, 1971 Texaco).
15. Documents #55918-19 (Oct. 28, 1971 Texaco); See also Document #55908 (Nov. 8, 1971 Texaco). The Director's distorted view of this episode, contained at pages 207-08 of Volume VI, is discussed more fully at pages 129-130 *infra*.
16. Vol. VI at 6.
17. See, e.g., Vol. VI at 386-87.
18. Rather than presenting similarly probative evidence regarding the use of consignment and allowance programmes in the period from 1958-1973, the Director relies instead on anecdotal references in the seized documents describing a few episodes where the implementation or removal of such programmes by some of the major refiner-marketers roughly coincided.

19. Imperial is omitted from the charts because the data in Table 13 of Appendix A regarding Imperial's use of support programmes is non-comparable to the data for Shell, Gulf and Texaco Canada.

20. In Exhibits III-II and III-III of this document, the data in Appendix A of Volume VI of the Green Books have been restructured further to contrast the manner in which each refiner-marketer used allowance programmes (Exhibit III-II) and consignment programmes (Exhibit III-III). Those Exhibits reveal that, in addition to their discordant use of support programmes in general, refiner-marketers followed divergent paths in deciding which form of support, allowance or consignment, best suited their individual needs in different markets.

21. Table III-1.

22. *Id.*

23. Gulf's Ontario volume based only on consignment volume; no allowance data supplied in Table 5.

24. Gulf's British Columbia volume based only on allowance volume; no consignment data supplied in Table 6.

25. See "Urban Retail Study", Documents No. 74527-74643 (Gulf, May 27, 1968).

26. Document No. 45792 (Texaco, Nov. 3, 1972) (emphasis added).

27. The Director charges Texaco Canada with restricting its Regent operations to areas where they could be used as temporary weapons against independents. *See* Vol. VI at 234, 241. This allegation is completely unsupportable. See *infra* at pp. 136-138.

28. Document No. 50288 (Texaco, March 6, 1973).

29. See Documents No. 50289-50291 (Texaco, March 4, 1973). It also should be noted that price cutting by Shell car wash outlets and Gulf branded stations also contributed to Texaco Canada's decision, further undermining the Director's assertion that major refiner-marketers did not compete in price. See *id.*

30. Vol. VI at 6.

31. *Op. cit.* at 381.

32. *Op. cit.* at 385.

33. The Director concedes as much in Volume I where he admits that the major refiner-marketers "did not adopt exactly the same policies" and, indeed, that each company adopted policies "best suited to its own situation." Volume I at 98.

34. The marketing activities of Petro-Canada provide an excellent illustration. Although it seems safe to assume that Petro-Canada's pricing and marketing policies are not the result of a conscious attempt to coordinate its policies with those of Canada's other major refiner-marketers, its policies nevertheless bear a striking resemblance to those of the other majors. See *supra* at pp. 102-103.

35. In this sense, of course, the naturally competitive domino effect of price cutting by market participants in response to the initial price cutter's price reduction can be viewed as having a mutually reinforcing effect. Contrary to the Director's assertion, however, this effect is the natural and inevitable result of competition based on price in any market, like the retail gasoline market, where overall demand is relatively inelastic.

36. Turner, "The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal," 75 *Harv. L. Rev.* 655, 665-66 (1962) (emphasis added).

37. *Op. cit.* at 666.

38. "[T]he mere fact that several firms in a market are large enough for their decisions to have an appreciable effect on market price or other variables does not establish the probability of significant departures from competitive performance." 2 P. Areeda & D. Turner, *Antitrust Law* Sec. 404b(4) (1978). Indeed, heterogeneity in product/service options makes significant departures particularly unlikely. *Id.* at Sec. 404b(2).

39. Vol. VI at 208.

40. *Op. cit.* at 208-09.

41. Vol. VI at 209 quoting Documents #46280 (Texaco Jan. 31, 1968).

42. Document #46280 (Texaco Jan. 31, 1968). Moreover, it should be noted that, in anticipation of the tentative decision to increase prices, Texaco officials explicitly "re-emphasized on our instructions to the field that under no circumstances is our intended pricing to be discussed with anyone, particularly our competitors; nor are we to be in communication with them about their intentions." *Id.*

43. *Id.*

44. Document #46278 (Texaco Feb. 7, 1968).

45. *Id.*

46. Document #46276 (Texaco Feb. 14, 1968).

47. *Id.* Indeed, other contemporaneous Texaco documents graphically reveal the effectiveness of Imperial's strategy in undercutting the prices at Shell and Gulf outlets:

> Regarding the situation at retail approximately 60% of Shell and B.A. [Gulf] dealers have moved from the previously generally prevailing price of .469 to .479, with the balance staying at .469. On the other hand, Imperial have been working hard to get their dealers *down* at retail from .469 to .459 and as of the end of last week, they had 40% of their accounts at .459.

Document #46282 (Texaco Feb. 12, 1968) (emphasis in original).

48. See Document #46282 Texaco Feb. 12, 1968).

49. Document #46276 (Texaco Feb. 14, 1968).

50. Vol. VI at 210.

51. *Id.*

52. Vol. I at 98.

53. 34(1) Everyone engaged in a business who:

(c) engages in a policy of selling products at prices unreasonably low, having the effect or tendency of substantially lessening competition or eliminating a competitor, or designed to have such effect, is guilty of an indictable offense and is liable to imprisonment for two years.

Combines Investigations Act, R.S.C. 1970, c. C-23, clause 34(1)(c).

54. Opening Statement of the Director, The Marketing of Refined Petroleum Products, Petroleum Industry Inquiry at 4 (September, 1982).

55. Vol. VI at 77.

56. *Op. cit.* at 32.

57. *Id.*

58. *Op. cit.* at 34; see Vol. VI at 33.

59. Vol. VI at 34, see also Vol. I at 141-42.

60. The Director distinguishes between disciplinary pricing and predatory pricing. According to the Green Books, disciplinary pricing "occurs when a dominant firm threatens both exisiting and potential marketers by reducing its price to meet lower prices set by other retailers with the intent of restoring prices to higher levels," Vol VI at 32, whereas predatory pricing, a "more virulent form of disciplinary pricing," occurs when such a company prices below some measure of cost with the intent of eliminating other retailers and thereby charging higher prices in the future. *Op. cit.* at 33-34. Both disciplinary and predatory pricing, as defined in the Green Books, fall within the general definition of predation, which entails a deliberate sacrifice of present revenues for the purpose of either driving rivals from the market or disciplining them in order that those losses may be recouped through higher profits after rivals are eliminated or disciplined. See, e.g., 3 P. Areeda & D. Turner, *Antitrust Law* Sec. 711b & n.5 (1978); Easterbrook, "Predatory Strategies and Counterstrategies," 48 *U. Chi. L. Rev.* 263, 268 (1981). Since, according to the Green Books, the purpose of disciplining and predatory pricing is the same and since both must be distinguished from legitimate, pro-competitive pricing, the Director's theory of disciplinary pricing appears to be nothing more than an alternative theory of predation completely stripped of the element of unreasonably low prices, in patent conflict with existing Canadian competition policy.

61. The Director's reliance on Professor Yamey's article is similarly misplaced. Aside from the fact that Professor Yamey's views have been uniformly rejected by a large body of subsequent legal and economic literature, the Director fails to adduce evidence sufficient for a finding of predation even under Yamey's lenient approach. Professor Yamey concludes that pricing which is not profit maximizing in the short run (regardless of whether it is above or below cost) coupled with the requisite intent is predatory, see B. Yamey, "Predatory Price Cutting: Notes and Comments," 15 *J. L. & Econ.* 129 (1972), yet the Director fails to demonstrate that the pricing practices of refiner-marketers were not profit maximizing in the short run, *i.e.*, that they would have had higher short run profits had they not implemented consignment and allowance programmes (and second brands) to recapture volume, but instead held the line on branded prices and allowed volume to dwindle. Indeed, as explained above, Texaco Canada's pricing policies were specifically designed to maximize profits (or minimize losses) in the short run.

62. Areeda, "Predatory Pricing (1980)," 49 *Antitrust L. J.* 897, 899 (1981).

63. In his opening statement on the marketing sector, the Director has stressed his desire that Canadian antitrust policy not have this protectionist effect. See Opening Statement of the Director, the Marketing of Refined Petroleum Products, Petroleum Industry Inquiry, at 4 (September, 1982). However, the Director has yet to offer a standard for predation that would avoid this result.

64. Vol. VI at 33 and 48.

65. *Op. cit.* at 77.

66. See Part III I. *supra.*

67. See p. 127 *infra.*

68. Vol. VI at 34 and 77. *See also* Vol. I at 141.

69. Vol. VI at 388.

70. *Id.*

71. G. Stigler, *The Organization of Industry,* 67-70 (1968); 2 P. Areeda and D. Turner, *Antitrust Law* #409 (1978).

72. See, e.g., J. Bain, *Industrial Organization* 247 (2nd ed. 1968); P. Samuelson, *Economics* 517 (9th ed. 1973).

73. Vol. VI at 34.

74. See *DOE* Report at 34.

75. Easterbrook, "Predatory Strategies and Counterstrategies," 48 *U. Chi. L. Rev.* 263, 272 (1981).

76. *Op. cit.* at 280.

77. *Op. cit.* at 284.

78. Vol. VI at 8, Table 1 (Atlantic Market), 10-14, Figures 1-3, and Table 2 (Quebec Market), 14-17, Figure 4 and Table 3 (Ontario Market), 17-20 and Table 6 (Prairies Market), 20-21 and Table 7 (Pacific Market). See also Vol. 1 at 50, Figure 1.

79. Transcript of Public Hearings before the Restrictive Trade Practices Commission, Vol. 59 at pp. 11565-66 (July 15, 1982) (testimony of William Alexander Hemstreet). After he reopened the outlet, Mr. Hemstreet "attracted a lot of business" based upon his low prices.

80. Mr. Hemstreet's testimony also suggests that the price jockeying he described was the result of intense, pro-competitive price competition rather than predation. He concluded that, in the Guelph market, Gulf opened a new self service outlet and undercut not only his prices but also those of the other majors as well. *Op. cit.* at 11556-57. Needless to say, such behavior is hardly indicative of harmonization among refiner-marketers.

81. It should be noted that it is extremely difficult to determine whether there is excess capacity in a market like gasoline retailing. Much if not most of what the Director characterizes as excess capacity may not be excess at all. Multiple locations and multiple pumps serve consumer convenience by shortening the distance consumers have to travel to obtain gasoline and shortening the time they have to wait for service during those times of the day when demand is at a peak. The provision of other automobile services enables consumers to receive both gasoline and the other services with one trip.

When consumers are willing to pay for those conveniences, and the station can therefore be operated profitably on a lower volume of gasoline sales than the facilities could theoretically handle, their capacity is not excess simply because low service stations using similar gasoline facilities have higher volumes (and, indeed, must have higher volumes in order to operate profitably).

82. P. Samuelson, *Economics,* 519 (9th ed. 1973).

83. P. Areeda and D. Turner, *Antitrust Law* Para. 715a (1978).

84. See Vol. VI at 74-75. The letter is contained in documents #57436-41 (Texaco) and cited repeatedly throughout Volume VI.

85. Document #57438 (Texaco Nov. 22, 1962).

86. Document #57440 (Texaco Nov. 22, 1962), quoted in Vol. VI at 74.

87. Vol. VI at 70.

88. Vol. VI at 207.

89. Vol. VI at 208.

90. Document #58347-48 (Sept. 2, 1971 Texaco). Rather than mentioning this document, the Director cites a Texaco document written two weeks after the allowance programme was eliminated and stating that Texaco's original projection of a 20 percent decrease in sales had proved to be overly optimistic and that sales decreases had averaged 30 percent. Vol. VI at 208, quoting Document #55933-4 (Texaco). The original 20 percent projection was contained in Document #58347-48, which the Director fails to cite, apparently because that document also projected that, 20 percent sales decrease notwithstanding, revenues would increase. The document cited by the Director proves nothing except that Texaco's original projections were erroneous. Moreover, what the Director neglects to consider is that the document he cites lends further support to the proposition that predation would never be successful in the retail gasoline market: as soon as Texaco attempted to raise its prices, its sales dropped precipitously.

91. Vol. VI at 221.

92. *Op. cit.* at 226.

93. Memorandum from the Assistant Division Manager, Retail to R. Krantz. (June 5, 1972 Texaco) (emphasis added). See Exhibit III-IV.

94. *Id.*

95. Document #30702-05 (Oct. 13, 1971 Shell).

96. Vol. VI at 2.

97. The Director claims that refiner-marketers also preferred consignment programmes because they allowed refiners to introduce price cuts in relatively small geographic areas without violating the price discrimination provisions of the *Combines Investigation Act.* Vol. VI at 3. As explained below, competition laws should not require a company to introduce price cuts in any geographic area in which supply and demand conditions are not changed as a result of new entry, and the use of consignment should be considered a reasonable means of complying with the law's requirements while still seeking to engage in legitimate competition. If the *Combines Investigation Act* prevents companies

from tailoring the geographic scope of their response to new entry, then the Act impedes efficient, competitive responses to new entry. Since the Director apparently concedes the legality of consignment selling under current law, and since expanding the scope of the law on this point would be anti-competitive, the Director's criticism is misdirected.

98. See, *e.g.*, Document #42676 (Texaco).

99. See, *e.g.*, F. Scherer, *Industrial Market Structure and Performance* 284-88 (1st ed. 1970).

100. In economic terms, consignment and allowance programmes allow a refiner-marketer and its retailers to jointly minimize costs and maximize profits, resulting in a greater volume of gasoline sold at a lower price than would occur if retailers independently attempted to maximize profits based upon their wholesale cost of gasoline. The reason is as follows: Since branded retailers, unlike independent gas only retailers, have the ability to substitute service bay income for gasoline income when faced with price competition from independents, and since the retail gasoline market, although more competitive than the wholesale market, is not perfectly competitive in the textbook sense, branded retailers may seek a lower level of gasoline volume and a higher price than their supplier, a refiner-marketer, would prefer. Maximum resale price restraints, however, eliminate this exercise of market power by branded retailers, resulting in a greater volume of gasoline sold at a lower price. See, *e.g.*, F. Scherer, *Industrial Market Structure and Performance*, 300-02 (2nd ed. 1980); 2 A. Khan, *The Economics of Regulation* 258-59; Westfield, ''Vertical Integration: Does Product Price Rise or Fall?'' 71 *Am. Econ. Rev.* 334 (1981); A. Koutsoyiannis, ''Vertical Integration Revisited,'' 19 *J.L. and Econ.* 17 (1976); Vernon and Graham, ''Profitability of Monopolization by Vertical Integration,'' 79 *J. Pol. Econ.* 924 (1971); Machlup and Taber, ''Bilateral Monopoly, Successive Monopoly, and Vertical Integration,'' 27 *Economica* 101 (1960).

101. Once again, the Director attempts to place refiner-marketers in a Catch-22 situation. One is naturally led to ask whether the Director would prefer that in a spirit of promoting competition, refiner-marketers abstain from pricing aggressively in response to entry.

102. Vol. VI at 226-27.

103. Vol. VI at 119.

104. Vol. VI at 120.

105. Vol. VI at 4.

106. See Exhibit II-I and Note 29, Part II.

107. See Vol. VI at 130 and 268.

108. Document #56166 (Texaco).

109. Documents #8786, 50278-9, 53618, 55908, 58384, and 58393 (Texaco); Testimony of Krantz, Toronto Hearings, 1975, Vol. VII, p. 755.

110. Vol. VI at 240 (quoting Testimony of Krantz, Toronto Hearings, 1975, Vol. VII, pp. 748-49).

111. Vol. VI at 310-11.

112. Vol. VI at 348.

113. Vol. VI at 311-21.

114. Document #46280 (Texaco Jan. 31, 1968).

115. Document #42682 (Texaco Feb. 7, 1968).

116. The Shell and Gulf tank wagon increases were not initially accompanied by any support programmes. See *id.* and Document #64276 (Texaco Feb. 14, 1968).

117. The Director suggests that Shell eventually adopted a support programme similar to Texaco and Imperial. See Vol. VI at 313. The ceiling price for its programme, however, was apparently 47.9¢ per gallon, a cent to two cents higher than that for Imperial and Texaco. *Id.* Moreover, Shell's 47.9¢ ceiling price was not a squeeze at all since it reflected Shell's 0.8¢ increase in tank wagon price. *Op. cit.* at 312-13. The Director presents no evidence that Gulf followed the Imperial strategy in Ontario during this period.

118. Vol. VI at 321.

119. *Op. cit.* at 323.

120. *Op. cit.* at 324.

121. Shell and Imperial counsel are, of course, in the best position to address this issue.

122. Vol. VI at 324.

123. Document #6876-77 (Texaco March 1, 1972).

124. *Id.*

125. The data and methodology of Appendix D leave a number of important questions unanswered. First, the retail price data in Table D-I and the wholesale price data in D-II are averages and the Green Books give no indication that they were calculated on comparable geographic regions or time periods. Nevertheless, the Director calculates margins by subtracting the wholesale average from the retail average. Thus, the Director may be matching non-comparable data when he derives his margin estimates.

    Second, the data and the Director's methodology appear suspicious because of the length of time over which they allege a squeeze. For example, if, as the Director alleges, Toronto independents actually were subject to a two year squeeze, it is difficult to see how they managed to remain in business over such a long period. Yet it is clear that many did. Therefore, it is likely that either the Director's estimates of necessary margins are overstated or his calculation of actual margins is understated.

126. See "Petroleum Marketing Report," 22 *Oilweek* 12 (November 22, 1982).

127. In its study on gasoline retailing in the United States, the U.S. Department of Energy noted the same error in the multitude of complaints it received from branded retailers in the United States:

> The hypothesis that dealers are the victims of the subsidizing tactics of their landlord-suppliers suggests that refiners open company stores and attempt to heap additional costs on their dealers in order to eliminate them. Such a view ignores the fact that the lessee did not go into business until the refiner provided it with an outlet and a ''mutually acceptable'' lease. Do refiners go through this process so they can later terminate dealers? Is this process a goal unto itself?

Delaney and Fenili, U.S. Dept. of Energy, *Final Report: The State of Competition in Gasoline Marketing* 188 (Jan. 1981).

PART IV

PETROLEUM MARKETING BY TEXACO CANADA TODAY

Changes in gasoline prices and price wars in numerous Canadian markets have attracted considerable public attention. Texaco Canada cannot explain all market activities in the industry, but it proposes to supply evidence and present submissions concerning its own practices that may help increase public understanding of the marketplace.

Texaco Canada continues to be an active participant as a refiner-marketer in Canada. Even in these difficult economic times, it is optimistic and continues to adopt strategies that it believes will, in the long run, best serve its shareholders, its many customers across Canada and the public at large.

As overcapacity at the refinery level has become more obvious, and as excess supplies hang over the market, adherence to long range marketing plans becomes more and more difficult. Nevertheless, it is useful to review the company's current marketing policies in order to understand the significance of its present reactions.

This part begins with an explanation of Texaco Canada's tank wagon pricing structure and then moves to a discussion of the manner in which the company markets the various petroleum products it refines. The discussion is organized around the following product groups: gasoline and diesel fuel, burning oil and residuals, and other petroleum products. The products in the first two of these three product groups are sold in retail, wholesale and commercial markets. Sales of residuals and other petroleum products are made principally in commercial markets.

I. Tank Wagon Prices

Any discussion of current Texaco Canada marketing policies should begin with the concept of tank wagon prices. Texaco Canada historically has relied upon tank wagon prices as the basis for establishing the actual prices at which it will sell gasoline and other refined products. Understanding the concept of tank wagon prices is critical to an understanding of Texaco Canada's pricing policies.

Tank wagon prices are posted prices, *i.e.*, prices determined by the company that, depending upon particular market conditions, may or may not represent the prices at which products are actually sold. Each tank wagon price represents Texaco Canada's estimate of a fair benchmark price calculated to provide a reasonable rate of return and to recover all costs of production, delivery and other services typically associated with the sale of a particular refined product in a given geographic market, taking into account a general assessment of competitive conditions.

As this description suggests, a tank wagon price does not represent the minimum price at which a given product can profitably be sold. Moreover, because a tank wagon price reflects only a general assessment of competitive conditions and includes a cost estimate for services that some buyers do not require, it is subject to adjustment in particular markets or in sales to particular buyers where the assumptions on which it is based are not applicable. A tank wagon price serves as a useful starting point to enable Texaco Canada's management to make informed decisions about the various prices it charges to different buyers in different markets.

In those markets where the assumption on which it is based is applicable, it may in fact be the actual price at which a given product is sold.

Texaco Canada uses four kinds of tank wagon prices. The most widely known of these is the dealer tank wagon price (DTW). DTW is the posted price for gasoline sold to the service station operators who buy for resale under the Texaco brand name. In addition to receiving gasoline, they also receive a variety of related services, such as advertising, credit cards and promotion. Consequently, DTW is designed to recover not only the cost of gasoline but also a portion of the cost of various other services and benefits that the retailer receives from Texaco Canada. In order to respond to competitive conditions in specific markets, the company may deduct an amount from DTW to permit retailers to price competitively.

Texaco Canada also sells gasoline to resellers who do not sell under the Texaco brand name. The company does not provide these sellers, known as jobbers, with the services (*i.e.*, delivery, advertising, credit cards and so forth) that it provides to branded retailers. Consequently, jobbers receive a discount or reduction below DTW. The size of the discount is negotiable and therefore varies depending upon such factors as the size and duration of the contract and competition between refiners and other suppliers for the jobber business.

Texaco Canada establishes a commercial consumer tank wagon price (CCTW) for sales to large consumers of gasoline, *i.e.*, large commercial and institutional accounts. Unlike DTW, CCTW is not designed to recover branded costs (credit cards, advertising, rent, etc.), but is intended to cover costs such as costs of credit and delivery to smaller storage. In today's market, commercial sales provide incremental revenue and a market for excess supply. As with jobbers, contracts with commercial and institutional buyers are usually negotiated, and buyers often receive a discount below CCTW based upon such factors as the size and duration of the contract, individual variations in credit terms and delivery, storage costs and, of course, competition from refiners and other suppliers.

Texaco Canada also establishes a farm and other commercial consumer tank wagon price (F&OCTW). This price is applicable to certain small volume consumers (both commercial and farm). Delivery, storage and credit costs are often high. This price is usually higher than DTW or CCTW.

Texaco Canada sells most of its furnace and stove oil directly to householders under a single general tank wagon price (TW). The company sells most of its heavy fuel oil to large commercial and institutional consumer accounts at a negotiated price.

In the past few years, as excess refining capacity developed, the amount of refined products sold at prices below the applicable tank wagon price increased significantly. The explanation for this phenomenon is that tank wagon prices are based upon an analysis of cost and assume normal market conditions. They do not assume excess capacity or cutthroat competition.

II. The Marketing of Gasoline and Diesel Fuel

A. Introduction

Texaco Canada markets gasoline and diesel to three classes of trade: retail, wholesale and commercial. The retail and wholesale trade classes include sales to both consumers and resellers, while the commercial class involves direct sales to consumers in the industrial, transportation, marine, mining, government and manufacturing sectors.

Tables IV-1 and IV-2 show the percentage of Texaco Canada's total gasoline and diesel sales volume marketed through each of these three classes of trade. Chart IV-A indicates the company's total gasoline sales and market share for the period 1957 to 1980.

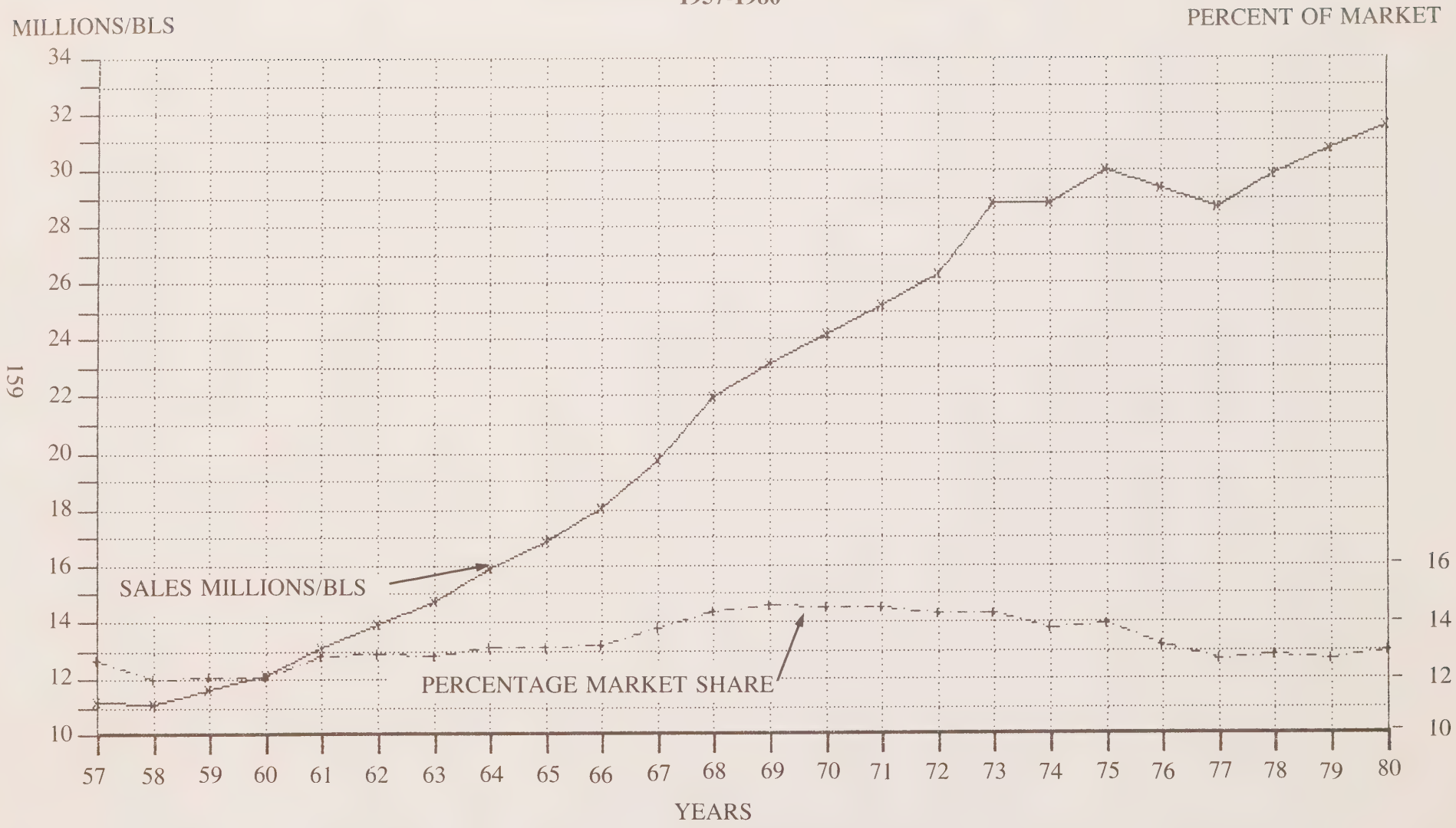
TABLE IV-1

Texaco Canada
Gasoline Sales By Class of Trade
1981

	Percent of Total Sales	
Retail		
Company owned and third party leased service stations	48	
Cross lease and mortgage	17	
Other branded retail	4	69
Wholesale		
Branded resellers, consignees, tank truck dealers, franchisees	3	
Unbranded resellers - jobbers	18	
Direct to consumers through distributors	3	24
Commercial		
Governments	2	
Automotive fleets	2	
Other, including railways, marine, domestic aviation, contractors, manufacturers and mining	3	7
		100

CHART IV-A

Texaco Canada
Motor Gasoline Sales and Market Share
1957-1980



SOURCE: Texaco Canada reports
Statistics Canada Catalogue 45-004

TABLE IV-2

Texaco Canada
Diesel Fuel Sales By Class of Trade
1981

	Percent of Total Sales	
Retail		
Company owned and third party leased service stations	2	
Cross lease and mortgage	7	
Other branded retail	1	10
Wholesale		
Branded resellers, consignees, tank truck dealers, franchisees	5	
Unbranded resellers - jobbers	3	
Direct to consumers through distributors	5	13
Commercial		
Governments: Federal	2	
Other	9	
Railways	12	
Marine	4	
Automotive fleets	27	
Contractors	7	
Manufacturers	7	
Mining	1	
Other, including domestic aviation	8	77
		100

B. Retail Sales

(i) Competition for Gasoline and Diesel Sales

Texaco Canada's overall objective in refining and marketing petroleum products is to attract and hold customers and maximize total profits from its refining and marketing operations. Achieving this objective requires a balancing of the key elements of overall profit: volume and profit margin. On the one hand, adequate volume is necessary to enable the company's refineries and distribution facilities to operate efficiently and minimize costs. On the other hand, an adequate margin is necessary to ensure that sales contribute to the financial health of the company.

Because customers are attracted and held by different incentives, refined products are marketed through different competitive offerings. Some of the more important competitive tools are:

- Price;
- Location — attractive and easily accessible sites;
- Availability — a network of stations to satisfy the needs of the travelling public;
- Image — creating and maintaining brand loyalty by presenting attractive, efficiently staffed retail outlets, supported by tasteful advertising and promotion and a travel card programme;
- Service — availability of competent and dependable automotive repair services and automotive care supplies at reasonable prices; and
- Promotional inducements — the offering of discounted merchandise and services as an incentive to consumers and as a means of attracting new customers.

Over the years, Texaco Canada has generally not been the largest marketer in the areas of Canada in which it does business. It has, however, been profitable and has earned the loyalty and recognition of its customers because it has offered the Canadian motorist a package of high quality products and services at convenient locations and competitive prices. Its emphasis has constantly been on attracting and holding customers.

The company's pricing and marketing decisions are based upon its assessment of marketplace realities, including costs and consumer demand, as well as on its own volume and earning objectives. It sets its prices independently, although its decisions are affected by the actions of its competitors. It regularly forecasts the impact of possible price changes on its volumes and profits.

(ii) Texaco Canada's Retail Structure and Pricing Policy

It may be useful to consider potential purchasers of gasoline in two groups:

1. Those customers who are primarily interested in convenience, service and the benefits of a relationship with a local service station, while being less concerned about the price of gasoline.
2. Those customers whose primary concern is price and who thus may be attracted to self serve stations, independents and second brands.

Texaco Canada remains anxious to increase and maintain its share of the market in both areas. Each market segment contributes to the company's profits. Because the markets are different, the company's strategies for each segment differ. In general, Texaco Canada has sought to serve the first segment through sales to its branded retailer network and the second segment through second brand and self service stations operated under agency relationships. The next two subsections deal with these market segments in turn.

(a) Sales to Texaco Branded Service Stations

Texaco Canada markets a large portion of its petroleum products through a network of branded service stations. These outlets can conveniently be divided into two distinct categories: a) company owned or third party leased locations and b) independently owned

facilities. This section of this submission describes Texaco Canada's branded retailer network and its associations with its retailers.

(1) Contractual Arrangements

The first category of branded locations consists of (1) company owned stations where Texaco Canada owns the land and the building and (2) third party leased stations where Texaco Canada leases the land from the property owner and builds its own facility, or leases both the land and the existing building and pays a negotiated rental to the owner for a specified term. In both of these situations, Texaco Canada either leases the premises to an operator (normally referred to as a lessee, dealer, or retailer) or contracts with a retailer agent to operate the facility.

When Texaco Canada leases to an operator, that retailer pays a negotiated rental to the company. The rent takes into account the market value of the land and facility, the previous year's realty taxes, and the actual or projected sales of products other than gasoline or diesel, as reported to the company by the retailer. The rental formula attempts to strike a compromise between property value and costs, and a realistic recognition of ability to pay. The service station rental record review form is included as Exhibit IV-I. The lease, used throughout Canada accords with franchise guidelines, required by Ontario and Alberta. It has an initial one year term; subsequently, a three year term is offered.

The second category includes two groups of retailers. The first group consists of independently owned dealerships whose only tie to Texaco Canada is a supply agreement for a specified term. Usually this type of outlet generates a relatively small volume of sales. Texaco Canada enters into these supply agreements primarily to ensure that the company's customers will be able to buy Texaco gasoline across Canada. Examples of such outlets are marinas or service stations in remote areas of the country. The contractual arrangement with Texaco Canada is one of supply, although it may also include the loan of equipment by the company to the operator.

The second group of independently owned outlets become Texaco branded stations through a cross lease or mortgage arrangement. A cross lease is a financing technique under which the owner leases his facility to Texaco Canada for a negotiated term and rental. The company, in turn, leases the location back to the retailer. The difference between the rent received and the rent paid by the company is a net rental consideration to the property owner. The rental payment may be paid as an advance (either repayable or non-repayable), sometimes enabling the owner to make immediate improvements, or it may be paid over time in relation to the volume. In most cases, the property owner is also the retailer who operates the facility and takes title to the gasoline and diesel for resale to his customers at prices stipulated by him. Mortgage financing is also negotiated in appropriate circumstances, and the terms may differ depending upon the needs of the retailer and relevant economic considerations. These contractual arrangements are negotiated on the basis of the outlet's investment value, location, volume, potential sales and type of facility.

In both of the above situations the retailer is an independent businessman who has chosen to market with a major brand. He is free to contract with other suppliers at the expiry of his contract with Texaco Canada.

Obviously, the company is anxious to sell as much of its gasoline as it can through its retailer network at DTW price. It encourages its retailers to be competitive and provides them

with financial assistance under its retail assistance plan (RAP) when they need such assistance in order to be price competitive in the market. It is important to note that such assistance is voluntary because some retailers may choose to sacrifice volume in order to maintain an attractive margin on gasoline sales to customers who are not price sensitive.

Table IV-3, following, indicates the percentage of branded retail accounts and volume sales on consignment and RAP at various times since January 1979. As can be seen from this table, the number of accounts and volume on RAP fluctuates in accordance with competitive conditions.

Table IV-3

Texaco Canada

Percent Branded Retail Accounts and Retail Gasoline Sales Volume on Consignment and RAP

	Percent								
	Jan. 79	June 79	Dec. 79	June 80	Dec. 80	June 81	Dec. 81	June 82	Dec. 82
Consignment									
Accounts	16	16	16	17	17	18	18	19	21
Volume	36	34	36	37	37	41	44	43	47
RAP									
Accounts	50	52	6	*	1	2	10	28	38
Volume	50	49	4	*	1	3	9	23	33
Not Consignment or RAP									
Accounts	34	32	78	83	82	80	72	53	41
Volume	14	17	60	63	62	56	47	34	20

* less than ½ of 1 percent

(2) Costs and Profits at Branded Full Serve Locations

During the regional hearings, some retailers came forward with complaints that gasoline margins during price wars are not sufficient to generate any profits for them.

Texaco Canada is aware that gross income from gasoline sales will be reduced in soft market situations, and, accordingly, it provides financial assistance to its retailers in those times. Moreover, it is assumed that service revenue, as supported by the Texaco brand and property, will contribute to the retailers' profitability. Many Texaco retailers operate profitably even in soft market conditions because they are efficient and employ good management practices.

The largest expense of a full service retailer is wages, which equal approximately 40 percent of gross profit. In order to ensure that staff is fully utilized, products other than gasoline are almost always sold. This defrays the actual wage cost attributable to selling gasoline and maximizes profits. The retail development plan (explained later in this submission), in use by Texaco Canada's field supervisors, includes an analysis designed to assist the retailer in assessing his staff requirements and establishing realistic quotas for the sale of products other than gasoline, (SPOG).

The economics of operating a service station must be fully understood by prospective full service retailers. Texaco Canada has developed procedures to help prospective retailers analyze the projected and potential sales and net profits for the location they hope to operate. A pro forma income statement is prepared and discussed with the retailer. The figures used in the calculation are based on industry averages, calculated by Texaco Canada's marketing department using information provided by E.K. Williams & Co. Ltd., a service station accounting and management company. The averages for Toronto for 1981 are shown in Table IV-4.

Applying these figures to a typical Toronto location will yield a gross profit on all sales including gasoline of about 24 percent. Total other expenses (excluding cost of goods sold) were about 20 percent of gross sales, leaving a net profit of about 4 percent. In 1981 in Toronto, the net profit average was $42,000.

Many retailers, therefore, continue to earn high incomes even in price sensitive markets. The margins offered are sufficient to yield a reasonable profit, provided that effective management control is exercised over every facet of a retailer's business.

The following are average volumes and sales ratios for a full service station in Toronto for the year 1981 as derived from information supplied by E.K. Williams & Co. Ltd.

TABLE IV-4

Average Volumes and Sales Ratios for a Full Service Station Toronto, Ontario 1981

Gasoline volume

Annual = 1,805,000 litres (397,000 gallons)
Monthly = 150,000 litres (33,000 gallons)

Ratios of sales of products other than gasoline (SPOG)

	Per '000 Litres	Per '000 Gallons	Average Gross Profit
Motor oil	$ 9.17	$ 41.69	39.3%
Tires	$ 10.66	$ 48.46	17.9
Batteries	$ 5.08	$ 23.09	33.9
Parts and accessories	$ 57.30	$260.49	33.2
Labour	$ 42.04	$191.12	94.1
Other	$ 3.72	$ 16.91	24.8
SPOG sales per '000	$128.07	$581.76	52.2%

	SPOG Annual Sales	Cost of Goods Sold	Gross Profit
Motor oil	$ 16,548	$ 10,045	$ 6,503
Tires	$ 19,237	$ 15,793	$ 3,444
Batteries	$ 9,167	$ 6,060	$ 3,107
Parts and accessories	$103,404	$ 69,073	$ 34,331
Labour	$ 75,865	$ 4,476	$ 71,389
Other	$ 6,713	$ 5,048	$ 1,665
	$230,934	$110,495	$120,439

Monthly SPOG sales

Motor oil	$ 1,379
Tires	$ 1,603
Batteries	$ 764
Parts and accessories	$ 8,617
Labour	$ 6,322
Other	$ 559
	$ 19,244

Note: Average Number of Bays per Station = 2.7.
Average SPOG Sales per Bay = $7,128.

(3) Relations with Retailers

Texaco Canada bases its relationships with its many retailers across Canada on the concept it calls Partners for Profit. This concept calls on Texaco personnel to work in cooperation with the retailer through various marketing programmes to assist him to develop his business. The sales supervisor plays a major role by teaching management skills to assist the retailer in his business.

The partners for profit concept stresses three goals:

1. To develop a solid business relationship with retailers for mutual success.
2. To develop the supervisor's role as a business counsellor with his retailers.
3. To assist the retailer in operating his service bays in an efficient and professional manner.

Texaco Canada's desire to achieve these ends is probably best indicated in the company's statement of guiding principles and objectives which is included as Exhibit IV-2. If Texaco retailers operate within the same guidelines, a strong, mutually beneficial relationship is established.

Texaco Canada's marketing operations rest on the recognition that market conditions are continually in a state of change. Retailing and operating methods that were successful twenty or even ten years ago may not be successful in today's market. It is imperative, therefore, that responsible personnel continually review new operating and marketing techniques and convey them to corporate selling personnel and the retailer organization. This is done through an open communication process, either informally or on a formal basis through training programmes or seminars.

The following sections review Texaco Canada's retailer relations programme. The discussion begins with the process of selecting company personnel and retailers and proceeds through installation of new retailers, to the on going training that is offered by the company.

A. Texaco Selling Personnel

The most important link between Texaco Canada and its retailers is the retail district supervisor. Prior to being hired as a supervisor, he is thoroughly screened and interviewed by a number of management personnel. Exhibit IV-3 is a description of the district supervisor's job function and of the qualifications required for this position. As can be seen, Texaco Canada seeks individuals with a rounded education and a capacity for management.

Prior to being assigned to a territory, the sales supervisor undergoes an extensive training programme. It begins with a primary training programme which is identical to the one given to Texaco retailers. The supervisor trainee is then assigned to an experienced district supervisor for a period of approximately one month, during which he views, assists, and eventually takes responsibility for certain tasks. Texaco Canada provides an in house training programme on an on going basis intended to assist its selling personnel to achieve certain management skills. Such courses include:

- Professional selling skills
- Goal planning
- Reading financial reports

- Supervisory leadership skills
- Time management

Texaco Canada actively encourages the employee to take self improvement courses at universities or community colleges and contributes financially to those successfully completing these courses. These programmes are all designed to improve the quality of field personnel in their dealing with retailers, agents, and customers.

Texaco Canada's district supervisors are provided with a retail development plan designed to assist them in working with retailers. Emphasis is placed on planning and completion of goals and objectives, and particularly on a careful analysis of each retailer's viability. This is accomplished through studies aimed at determining maximum utilization of facilities and equipment, thus ensuring profitability and efficiency.

As part of the retail development plan, the supervisor is required to identify any potential new accounts in an area. Real estate availability is also examined in an effort to ensure representation in desirable areas. This comprehensive plan becomes the basis for the supervisor's efforts aimed at establishing an efficient retailer organization in his area, with the ultimate objective of assuring profitability for both Texaco Canada and the retailer.

B. Retailer Selection

An internally produced booklet, entitled *Retailer Installation Procedures,* is provided to the district supervisor to give him guidelines and procedures which he can use in interviewing and selecting competent retailers for available service station sites in his area. The booklet covers advertising and recruiting procedures, as well as the various methods which the company uses to determine the likely financial profitability of the location. It provides instruction for a calculation of investment requirements, and several check lists for stock and equipment.

To ensure full awareness of the managerial requirements of operating a service station, prospective retailers are offered a two week primary training course. This course is a basic introduction to all phases of service station management. The course contents include:

1. Orientation — company history and market position
2. Product clinics
3. Financial management
    a) Daily records, including working exercises
    b) Monthly records, including working exercises
    c) Inventory control
    d) Purchases
    e) Sales — ratios and balanced selling
    f) Gross profits
    g) Expenses
    h) Equipment
    i) Financial analysis of records

4. Personnel — selection, training and development — business policy
5. Housekeeping, displays, personnel
6. Recommended suppliers and sales techniques for tires, batteries and accessories
7. Insurance
8. Selling techniques — in bays and at islands
9. Safety and environment
10. Merchandising

A similar three day course is offered to the company's contracted retailers who will be operating self serve outlets. The course generally outlines the history of the company, products available, bookkeeping and financial management techniques, personnel selection training and development, housekeeping and customer relations.

Prior to installing a retailer in a service station, the district supervisor outlines in detail the various clauses in the lease (contracted retailer agreement - CRA). The supervisor is supported by an audio visual presentation entitled *Let's Talk About It*. This presentation outlines further information about the lease and the guidelines to be followed. Another audio visual training module entitled *Career in Retailing* is also available to show prospective lessees what is entailed in operating a business of this type.

C. Installation Process

To ensure a smooth entry into business, a supervisor and retailer review the guidelines outlined in an internally produced booklet entitled *You're in Business*. This handbook contains much valuable information concerning the required licences, banking, techniques for ordering products, maintenance procedures, etc. It reviews much of the material that was presented at the two week primary training course.

D. On Going Training for Retailers and Staff

Training on a continuous and on going basis is extremely important in establishing good retailer relations. It reassures the retailer that the company's overall goal of partners for profit is in fact sincere and that the district supervisor and retailer must work together toward common aims.

For this purpose, the local district supervisor has access to a number of audio visual training modules and films which can be used for one-on-one or group training. The various topics include:

- Customer relations
- Goal planning
- Inventory control
- Merchandising
- Products
- Recruiting
- Safety
- Sales
- Specialization

- Visual impact
- Full serve and self serve concepts

In addition, the local supervisor may call upon the services of designated retail training specialists to conduct advanced management seminars. These conferences are usually designed for specialized retailer groups, such as contracted retailers, retailers with service bays, full service operators, etc. The course content can be any topic or group of topics for which there is interest. Some of the more frequently requested topics are:

1. Financial records and analysis
2. Personnel selection, training and development
3. VIP (visual impact plus housekeeping, maintenance, etc.)
4. Merchandising, promotions and incentives

Seminars usually involve various retailers making presentations to the groups, so that one may learn from another's experience. They last from one to three days, depending upon the topic.

Texaco Canada also encourages its retailers with service bays to have their mechanics take a mechanical skill upgrading course. Texaco Canada sponsors programmes of this nature with outside technical consultants. To enhance this type of training medium, Texaco Canada publishes a magazine for its retailers and distributors three to four times yearly. Entitled *The Post,* it contains various articles written by in house specialists and outside experts. Topics range from crime prevention, to new car technical information, to management advice and a publication of congratulatory letters from the public about good service provided by individual retailers. Other outside training seminars are also available one of which is called *The Success Seminar*, conducted by E. K. Williams & Co. Ltd.

Texaco Canada has developed these programmes and procedures to support its retailer network because that network is an essential part of its overall marketing effort. The existence of these programmes demonstrates Texaco Canada's commitment to its branded retailers. They continue to offer an important and competitively viable marketing mechanism to serve Canadian consumers.

(b) Sales Directly to the Public

Marketing experience has taught that marketing gasoline through self serve and second brand stations in convenient locations can result in high volume sales at low unit cost. Economies of scale make high volume operations very attractive to the marketer and to the refiner. The most successful of those operations for Texaco Canada has been its large contractor operated self serve and second brand stations.

(1) Contractual Arrangements

When Texaco Canada contracts with a retailer under a contracted retailer agreement to operate a self serve or second brand facility, the gasoline and diesel is consigned to the retailer with title transferring directly from the company to the consumer. The company sets the retail price, having regard to competitive pressures. The contracted retailer sells the product on behalf of the company for a commission consisting of his costs plus a negotiated fee. The commission to the retailer can be of two types: fixed or variable. Both types of commission are based on projected volumes and estimated retailing expenses, including the retailer's compensation. However, the variable commission is adjusted based on changes in

volume and/or expenses, as determined from a monthly audit, to ensure that the commission reflects the actual retailing expenses, together with the applicable fee.

At times, the contractual arrangements entered into between the company and its retailers may involve both a service station lease and a contracted retailer agreement. In such cases, the service station lease covers the area in which the service bays or some other profit centre is located, while the contracted retailer agreement covers the gasoline and diesel pumps. In some outlets, the service station facility may be split between operators. In such situations, one party is the lessee retailer for the service bays or other profit centre under a service station lease, while another party sells the gasoline and diesel under a contracted retailer agreement. This permits the retailer to operate on a commission and avoids the need for him to provide a large amount of capital with which to finance costly motor fuel inventories. It also permits the company to react quickly to the competitive pricing pressures prevalent in today's volatile retail market.

Texaco Canada's pricing philosophy at its second brands is to match the competitive offerings of other second brands and unbranded retailers. This method of pricing and operating procedure helps to achieve the company's objectives of maintaining market share, increasing profitability and preserving retailer viability.

Tables IV-5 shows the breakdown, by region, of the various types of Texaco Canada's retail accounts in 1981, and Table IV-6 shows the percentage of retail sales of gasoline made in 1981 through various types of outlets, including lessee and agency outlets, independent branded retailers, and jobbers.

As can be seen from both tables, independent Texaco branded retailers account for 54 percent of the total number of outlets amounting to 25 percent of the gasoline sales volume. When Texaco Canada adds its sales of gasoline to unbranded wholesale jobbers who retail to the motoring public, 45 percent of the company's retail gasoline sales are through independent marketers.

TABLE IV-5

Texaco Canada
Number of Retail Accounts
1981

	Atlantic	Quebec	Ontario	Western	Total Canada
Independents					
Retailers on trading agreements varying from one month to 5 years	80	122	254	219	675
Retailers with mortgage or cross lease agreements	118	264	283	145	810
Company owned or leased					
Owned	95	271	333	212	911
Leased	25	123	125	107	380
Total	318	780	995	683	2776

Note: Independents represent 54 percent of total outlets and company owned or leased 46 percent.

TABLE IV-6

Texaco Canada
Gasoline Sales to the Retail Market
1981

Sales	Percent Distribution				
	Atlantic	Quebec	Ontario	West	Canada
Lessee and commission agent service stations	57	59	46	74	55
Independents (1)					
Branded	39	32	18	24	25
Jobbers	4	9	36	2	20
Total independents	43	41	54	26	45

(1) Includes branded retailers who own their properties and jobbers who buy non branded products for resale.

(2) Second Brand Marketing

Since the late 1960's, Texaco Canada has sold gasoline through a second brand network of service stations: Regent in Ontario and Independant in Quebec. The number of these retail outlets has varied from a low of 20 in the mid 1970's to a high of 52 in 1981, in accordance with competitive conditions and the company's marketing strategies.

Two typical case studies which depict the rationale inherent in Texaco Canada's second brand strategies are presented below.

A. Case Study A Converted in 1978

This branded retail outlet was situated in a fully developed residential area of a large city where the company was already well represented. In spite of the facility being modern and attractive, its sales performance was not satisfactory:

	Gallons
1973	207,000
1974	186,000
1975	204,000
1976	63,000

The competition in 1977 was entirely major brand, primarily self serves with canopies and, according to Kent Marketing Surveys, pumping volumes ranging up to 1,200,000 gallons per year.

The alternatives were to permanently close the facility and absorb the cost of idle property, or generate sufficient volume to earn a return on investment and preserve retailer viability. It was determined that by attracting the price conscious motorist, gasoline sales could reach a projected 600,000 gallons and profitability to the company would be increased. In February 1978, the location opened as a Regent rebrand. Sales increased that year to 344,000 gallons and in 1979 to 524,000 gallons. At this latter volume, the location became a viable outlet serving public demand. Since 1979, volume has continued to increase to a 1982 total of 680,000 gallons and profit contribution reached the projected level.

B. Case Study B Converted in 1978

This Texaco brand location was situated on a high traffic artery within the limits of a major city. Its main competition was from other second brands and unbrandeds who held an estimated one-third share of the local market.

The volume of sales up to the time of conversion, although increasing, was not up to the potential which would justify its continuance as a Texaco branded outlet:

	Gallons
1973	80,000
1974	65,000
1975	84,000
1976	101,000
1977	148,000

Consumer acceptance of a lower price and reduced service offering was evident by the market share figure. A marketing analysis indicated that rebranding to Regent would generate 450,000 gallons per year and contribute additional profitability. Within two years, the predicted volume was surpassed. In 1981 and 1982, this location's volume levelled off due to the fall in the overall demand for gasoline, further competitive pressure and changes in the traffic pattern.

Both examples demonstrate the strategies used in Texaco Canada's second brand marketing operations. Higher profitability can be achieved in certain locations through increased volume and lower unit costs, where consumers prefer a lower priced offering with reduced service.

By carefully selecting markets where the motoring public has indicated a demand for a second brand offering, Texaco Canada has improved its volume throughput and profitability. For example, a comparative analysis in recent years, shown in Table IV-8, shows significant increases in volume at Regent locations as compared to the volume that was previously attained as a Texaco, branded, high quality full service station.

TABLE IV-7

Texaco Canada

Volume Improvement of Second Brand Retail Outlets

1978 and 1980

Year	Number	Percentage Improvement in Second Brand Volume Versus Texaco Branded Volume Prior to Rebrand
1978	55	37
1980	46	105

Not all of the company's rebrand strategies have worked. Some second brand outlets have proved to be unsuccessful, and such outlets on occasion have been reconverted to the Texaco brand. For example, a location in the east end of Toronto was analyzed for possible conversion to Regent. It met several criteria, including a low volume throughput. In addition, the immediate trading area lacked a lower price offering even though the area in general had a high proportion of unbranded and second brand volume.

This Texaco branded retail outlet had sold an average of about 200,000 gallons per year over the previous four years. It was predicted that by rebranding, throughput could be raised to some 650,000 gallons per year. After rebranding early in 1978, the volume did not show appreciable increase, and the retailer began losing customers because of the lack of credit card facilities for in bay services. Initially, Texaco Canada assisted the retailer by reducing the monthly rental. This approach was unsuccessful and the decision was made to revert to a Texaco brand with full service offering later in that year.

The results of applying these policies and approaches to second brand marketing can be seen in the make up of the current network of Texaco Canada second brand stations.

In 1981, Texaco Canada had fifty-two second brands in operation across Canada. Although the majority offer full service, others are operated as self serves, thereby combining a low price offering with the efficiencies of self serve marketing.

The examples described above show how competition in the marketplace has shaped Texaco Canada's second brand operations. Because the value that consumers attach to a brand name and the services that accompany it will vary in different locations and at different times, it is difficult to generalize about the relative profitability of branded and second brand operations. Obviously, both have found a place for themselves in the market. But because consumer preferences and competitive pressures are forever changing, the balance between the two approaches will also be constantly changing. Even the price differential between branded and unbranded service will change as competitive pressures in particular locations dictate. For these reasons, Texaco Canada must remain flexible in its approach to this segment of the market.

(3) Self Serve Marketing

In the early 1970's, it became apparent to Texaco Canada that in some markets the traditional service station was becoming less viable. More motorists were becoming highly price conscious, which increased the popularity of low priced marketers. Texaco Canada reacted to these rapidly changing conditions with new strategies and programmes. By far the most successful approach was to recognize the preference of a growing number of consumers for self serve gasoline facilities, which resulted in the company adopting an extensive low cost conversion programme.

The major reason for converting a full serve outlet to self serve is to increase volume and lower unit costs. A lower price is possible because of the reduced costs associated with a self serve offering. The principal cost saving is in reduced labour charges.

In its efforts to achieve higher volume and lower unit cost, the company studied a number of factors. To ensure that volume projections were reached, site selection became an important criterion. Texaco Canada's overall strategy was to convert locations from full serve to self serve on a selective basis, retaining the service bays and continuing with the same retailer where possible. Each site was analyzed carefully to determine if its characteristics would best support a high volume self serve outlet. For example, since self serve appeals to only a particular segment of the market, locations were to be established only on high traffic arteries in order to expose the site to the greatest number of motorists. Therefore, traffic counts became a significant guideline. Another factor was the nature of competing outlets in the area. Locations were chosen primarily in areas where the competition consisted largely of major brand stations. This consideration was important because the lower prices associated

with a self serve location might not generate as large an increase in volume in a market dominated by low priced independents. Municipal bylaws were also studied to determine whether the location would conform as a self serve operation and whether restrictions on hours of operation would adversely affect potential volume increases.

To help further in achieving the goal of lower unit costs, each self serve location was opened under a contracted retailer agreement. This agreement provides for the operation of the gasoline facility on a cost plus fixed guarantee basis. The contracted retailer receives an expense allowance that includes compensation for him and reimbursement for all other authorized operating expenses. The gasoline under this arrangement is consigned, enabling the company to price competitively at retail and react quickly to market changes. The CRA programme also allows Texaco Canada to determine the hours of operation and to maintain desired standards for personnel and for the physical attractiveness of the location. Finally, it allows the company to monitor and control retailing expenses to ensure efficient use of funds.

Further measures are taken upon conversion to self serve to ensure that volume and unit cost objectives are attained. Extensive on location training is conducted, stressing proper operation of equipment, safety, public relations, accounting and image standards. At the time of opening, promotional activity includes special decorations at the station, merchandise inducements, credit card merchandising and neighbourhood promotional flyers. All are necessary ingredients in launching the new business and gaining customer acceptance.

The CRA programme permitted Texaco Canada to become more directly involved in retailing operations in order to ensure maximum performance and sales and lower costs. This approach was essential to the development of competitive cost effectiveness, and it assured the retailer of a minimum income regardless of the vagaries of the marketplace. Mr. Hogarth of Pioneer Petroleums, in his testimony in Toronto (Pg. 6796), echoed the same rationale when he spoke of converting some of his locations to self serve. He expressed a desire to achieve greater cost efficiency and a high volume of sales. Mr. Hogarth's salaried method of operating a retail location provided the control he identified as necessary for profitability and efficiency (Pg. 6800). As Mr. Hogarth indicated, he wanted to be in a position to ''react in the market very quickly.'' He also was able to control the public image and the hours of operation. Texaco Canada's CRA operations respond to these same competitive pressures and utilize a similar marketing approach.

A case study from Texaco Canada's recent experience helps to illustrate how these policies have been applied. In January 1983, Mr. Maurice Pierre appeared before the Commission with a panel of witnesses from Windsor, Ontario. He had been a Texaco retailer for 27 years before he retired in October, 1982. His station was located at 7875 Riverside Drive. In late 1982, Texaco converted a portion of the location to self serve, leaving a side island as full service. Mr. Pierre had been notified in February, 1982 of Texaco Canada's desire to convert the location to self serve at the termination of his lease later that year. He was offered the opportunity to become a lessee for the bays, according to Texaco Canada's practice in such cases, and to become a Texaco agent for the gasoline profit centre. During the conversion period, he was asked to pay only $1.00 per month rent to the company. He declined this offer and retired.

Early in 1982, Texaco Canada had conducted a market survey in Windsor which identified the Riverside Drive location as suitable for a self serve conversion. The decision

was based on a number of criteria. The station is located in a fully developed area of Windsor. The community is mixed residential, commercial, industrial and institutional. Riverside Drive is a heavily travelled route with over 30,000 vehicles daily (70 percent transient, 30 percent community). The volume history indicated a slight increase due to an influx of American customers in 1980, but declined in 1981.

1978 — 369,000 Gal.
1979 — 455,000 Gal.
1980 — 504,000 Gal.
1981 — 416,000 Gal.

The major competitor, a Gulf self serve, sold over 980,000 gallons in 1981, as reported by a Kent Marketing survey. This indicated to Texaco Canada that potential for greater volume existed at its location.

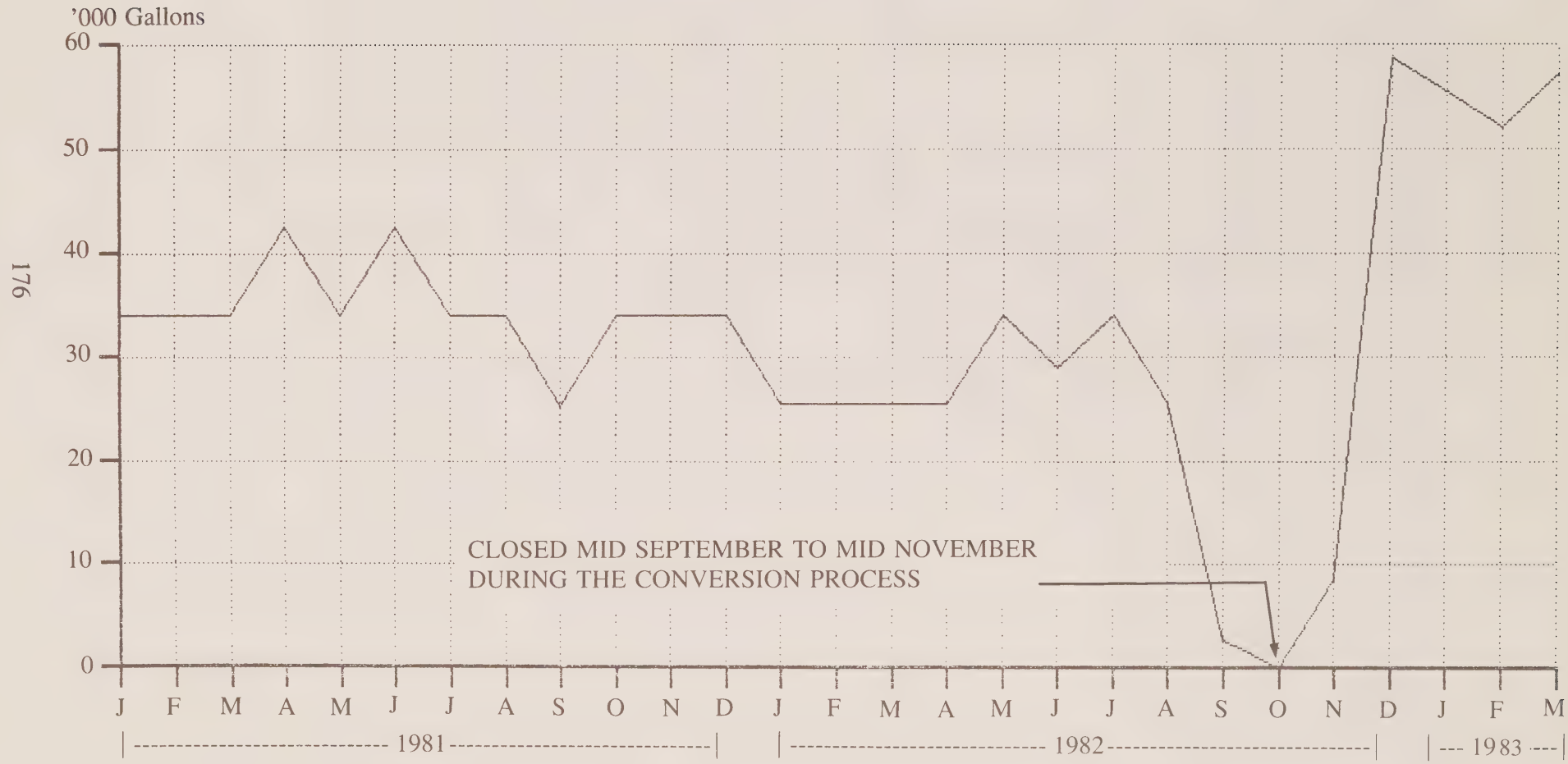
Texaco Canada also analyzed the financial factors affecting the location, and, based on projected volumes, prices and expenses, the company estimated that profitability would increase approximately 48 percent if self serve were introduced. The type of financial analysis conducted takes into consideration the incremental volume and the potential returns if that incremental volume were sold to the jobber, wholesale or commercial class of trade, instead of being sold through the self serve location. In this case, the incremental sale to an alternative class of trade would have produced 11 percent less in profits than sales through a self serve location. A decision to proceed with the conversion was made and the process was completed in November 1982. Texaco Canada converted the front islands to self serve, retaining the side island as a full service facility.

Chart IV-B, following, indicates that the volume of monthly gasoline sales at this location prior to conversion averaged about 35,000 gallons. In the first full month following the conversion, the combined volume reached approximately 55,000 gallons of which full serve represented only about 20 percent. The total improvement was equivalent to an increase of nearly 60 percent.

This case study represents something of an unusual case since one pump island was retained for full service. Generally speaking, it is not the company's experience that full serve will remain successful when there is a self serve alternative on the same site. Full service at the Windsor location was approved because of Mr. Pierre's assessment of the type of clientele frequenting his location. Nevertheless, this type of operation is not popular in Canada, even though it is common in the United States. In most parts of Canada, legislation requires an employee to be at the sales display console at all times. This is a safety feature, since the entire pumping system can be cut off at the console. Because of this requirement, an additional employee would be required to look after the full serve facility. This requirement adds to costs whereas in the United States, the same employee can handle both functions and dual type operations are therefore more prevalent.

CHART IV-B

Gasoline Sales
M. Pierre
Riverside and Lauzon, Windsor, Ontario



From time to time, in spite of some additional cost factors, Texaco Canada opted to test the dual full serve self serve concept when it felt that the costs were justified and additional sales would result. In most cases, full serve volume deteriorated over time to the point where it became uneconomical to retain the service. One particularly good example is Texaco Canada's Laurentian highway location called Port-du-Nord. The facility provides one set of islands for self serve and the other set for full serve, with the type of operation and price clearly visible. The consumer is able, therefore, to make a choice without any inconvenience whatsoever. The location was converted to self serve and full serve in February 1977. The percentage of total volume sold through self serve pumps and through full serve is shown in Table IV-8.

TABLE IV-8

Texaco Canada

Gasoline Sales

Self Serve vs. Full Serve

Port-du-Nord, Quebec

	Percent Self Serve	Percent Full Serve
1977	43	57
1978	57	43
1979	78	22
1980	79	21
1981	82	18
1982	86	14

As a result of the declining full serve volume, the station was recently converted entirely to self serve.

Self serve has become an accepted gasoline marketing method, and, as a result, Texaco Canada has increased this offering substantially in the last ten years as indicated in Table IV-9.

TABLE IV-9

Texaco Canada

Number of Self Serve Retail Outlets

1973-1982

	Number	Self serve outlets as a percentage of total retail outlets
1973	3	—
1974	34	1
1975	298	7
1976	329	8
1977	388	10
1978	436	12
1979	461	14
1980	466	16
1981	472	16
1982	513	19

The volume sold through self serve facilities has also increased. The self serve volume throughput as a percentage of Texaco Canada's total retail gasoline volume was 33 percent in 1980, 36 percent in 1981 and 39 percent in 1982.

C. Wholesale Sales

Texaco Canada markets gasoline, diesel fuel and other petroleum products on a wholesale basis, as well as through retail outlets. As Tables IV-1 and IV-2 indicate, the wholesale marketing group sold approximately 24 percent of Texaco Canada's total gasoline volume and 13 percent of its diesel volume in 1981.

The wholesale distribution system comprises several hundred salary and consignee operated bulk stations. A consignee operates a Texaco owned bulk station delivering Texaco branded products to customers located within a designated area in exchange for certain commissions paid to him by the company. As well as operating a bulk station as a consignee of Texaco Canada, this independent businessman may also sell Texaco products on his own account as either a tank truck dealer or a farm and heating oil distributor. These categories are described below.

Texaco Canada sells gasoline and diesel at wholesale in two ways: directly to consumers and to resellers through distributors. The next two sections discuss these modes of distribution in turn.

(i) Direct Sales to Consumers

As indicated in Tables IV-1 and IV-2, 3 percent of Texaco Canada's total sales of gasoline and 6 percent of total diesel sales in 1981 were made directly to consumers through

other than retail outlets. These direct sales of Texaco branded gasoline and diesel are made primarily to farm customers by what is known as a farm and heating oil distributor. These distributors pick up or receive products from a designated consignee operated or salary operated bulk station or sales terminal and may operate storage facilities established by the company. All sales are made on behalf of Texaco Canada with the farm and heating oil distributor receiving a commission for developing, providing delivery to and collecting from the accounts.

(ii) Sales to Resellers

In 1981, 21 percent of the total sales of gasoline and 8 percent of total diesel sales were made for resale to consumers through franchisees, tank truck dealers, full line distributors and jobbers. The sections below describe each reseller in turn.

(a) Franchisees

A franchisee is a farm and heating oil distributor who has purchased the accounts from Texaco Canada. These individuals or companies purchase all of their petroleum product requirements from Texaco Canada at tank wagon prices less a negotiated discount. They resell on a Texaco branded basis within defined geographical areas under their own trade name and at prices they establish.

A franchisee may pick up or receive products from a designated consignee operated or salary operated bulk station, or he may operate his own or company owned storage facilities. He may also be authorized to deliver petroleum products to Texaco Canada accounts. In order to improve the efficiencies of the franchisee's operation, Texaco Canada finances the installation of a computer terminal at the franchisee's place of business and also pays for its normal maintenance and a portion of the monthly transmission costs. In addition, Texaco Canada arranges for the provision of business information systems to its franchisees. These systems contribute to improved customer relations through the efficiency of automatic deliveries and, at the same time, accelerate the collection of accounts receivable. Texaco Canada also negotiated a complete financial package with a major chartered bank to give the franchisee access to financial services which he might not be able to obtain on his own.

(b) Tank Truck Dealers

A tank truck dealer is a customer who purchases gasoline, diesel, and other petroleum products from Texaco Canada on a branded basis and resells them to his own accounts which include farmers, fishermen and small commercial consumers. Tank truck dealers sell products to their accounts at prices established by them (usually consistent with tank wagon pricing) and carry their own accounts receivable.

(c) Full Line Distributor

This type of reseller is similar to a tank truck dealer, but owns or leases his own bulk station and operates his own retail outlets or those leased from Texaco Canada. The full line distributor purchases gasoline, diesel and other products from the company for resale under the Texaco brand name. This method of operation allows Texaco Canada to establish representation in outlying areas without incurring substantial capital cost.

(d) Jobbers

Jobbers are individuals or companies who do not have refining facilities but purchase petroleum products from Texaco Canada under a supply contract at negotiated prices. These products are then resold under the jobber's brand name. Jobbers may own and operate their own bulk plants, with products delivered by Texaco Canada, or they may pick up their requirements from a Texaco bulk station. The types of jobbers operations vary greatly: some are solely gasoline retailers, some have a number of retail outlets offering a full range of products, while others market only burning oils. Texaco Canada's jobber agreements usually have a one year term.

Table IV-10 compares Texaco Canada's sale of motor gasoline to jobbers with the total sales of this product in Ontario, Quebec and nationally, from 1971 to 1981. Ontario and Quebec jobber sales of motor gasoline constitute the bulk of Texaco Canada's national total. Consequently this submission will deal in more depth with the data about those provinces. In Ontario, the volume of sales of motor gasoline to jobbers increased from 21 percent of total sales in 1971 to 33 percent in 1981. Similarly, in Quebec, the increase was from 1 percent in 1971 to 8 percent in 1981. Across Canada over that ten year period, there was an increase of 8 percent from 10 percent in 1971 to 18 percent in 1981. The decline in sales in 1977 reflects the loss of the United Co-op business which accounted for approximately 166 million litres of gasoline annually. During 1978 and 1979, when refiner-marketers were allegedly denying supplies to jobbers because of shortages, Texaco Canada's sales of gasoline to jobbers in Ontario, Quebec and nationally increased.

TABLE IV-10

Texaco Canada

Motor Gasoline

Percentage Sales to Jobbers vs. Total Sales

Year	Percent Ontario	Percent Quebec	Percent Canada
1971	21	1	10
1972	22	*	11
1973	24	*	12
1974	27	3	14
1975	26	4	13
1976	27	3	13
1977	19	4	9
1978	21	5	11
1979	26	6	13
1980	29	7	16
1981	33	8	18

*less than ½ of 1 percent.

In Ontario in 1981, the volume of sales of gasoline to jobbers was approximately 90 percent of total wholesale sales of that product, while in Quebec in the same year the figure was approximately 80 percent.

In 1982, Texaco Canada had 25 jobber customers in Ontario, 11 of these having had a supply relationship with the company for more than 10 years. In Quebec, the number of jobbers supplied by Texaco Canada increased from 25 in 1966 to 51 in 1982, with 9 of these having been supplied by Texaco Canada for more than 10 years.

Jobber agreements are the result of negotiations involving price, volume, credit terms and, in some instances, lifting schedules. Prices to jobbers depend upon a number of factors, most notably the prices and other terms offered by Texaco Canada's competitors in the marketplace, the geographic area served by the jobber, and the availability of product. Prices to jobbers are generally expressed in terms of a discount off tank wagon price. Texaco Canada strives to keep its jobber prices competitive during the term of its contracts, and monitors, through market intelligence, the wholesale prices offered to jobbers by its competitors. The company may revise its prices during the contract period, sometimes in return for an extension of the existing contract or the signing of a new agreement.

Today's market for gasoline and diesel, as well as for other petroleum products, is characterized by oversupply. This situation has depressed wholesale prices. It is not uncommon today for jobbers to sign agreements with several suppliers in order to have the option, during the term of the agreements, to shop for the lowest available prices. For this reason (among others), Texaco Canada must adjust its wholesale prices to remain competitive with other refiners. Only in this way can Texaco Canada keep its sales levels high enough so that it can operate its refineries at optimum capacity.

(e) Canadian Tire

Canadian Tire is an important and longstanding customer of Texaco Canada for both gasoline and diesel. In Ontario, Canadian Tire became a customer in 1958; in Quebec, Texaco Canada's first sale to Canadian Tire occurred in 1977. Canadian Tire has used other suppliers for various locations over the years, but it currently purchases only from Texaco Canada (except for one station in Quebec, which is supplied by Spur under a long term agreement). Canadian Tire has a total of 87 gasoline outlets across Canada: 76 in Ontario, 8 in Quebec and 3 in Alberta.

In terms of volume of gasoline and diesel, Canadian Tire is a significant customer of Texaco Canada. In 1982, the company's sales of gasoline to this account represented about two-thirds of its total wholesale sales of this product. Canadian Tire currently has a five year purchase contract with Texaco Canada.

Texaco Canada does not control the prices at which Canadian Tire sells to the public, nor does it discuss retail pricing with its customer. If market prices decline to levels that seriously erode its profitability, Canadian Tire may submit a written request to Texaco Canada for a temporary price reduction. Texaco Canada complies when, in its view, a reduction is required to permit its customer to price profitably at a competitive level.

D. Commercial Sales

(i) Introduction

Commercial sales account for approximately 7 percent of the company's total gasoline volume and 77 percent of its diesel fuel sales. The commercial marketing group of Texaco Canada focuses its efforts on selling to large volume commercial consumer accounts and industrial users. Most commercial sales are made under short term agreements.

Commercial consumers include governments at various levels, airlines, railways, truck and bus fleets and manufacturers. These consumers typically call for tenders, or request quotations, and then contract for specified volumes for a specific period of time. The public sector acquires most of its product through a bid and quotation process.

Texaco Canada also acquires certain of its commercial accounts by direct solicitation and negotiation. Since tenders may be called or quotations requested, regular customer contacts are important.

The economies of scale related to larger sales volume and larger customer storage facilities are reflected in commercial consumer prices. An important function of the commercial group is to balance refinery production by disposing of surplus product at prices reflecting those circumstances.

The marketing of petroleum products in the commercial sector is challenging. In the current economic situation, buyers have become more conscious of the need to control their own costs, of which the cost of petroleum products may be significant. Because of the current availability of excess refining capacity, buyers are in a strong position in negotiating prices. Some will regularly play one supplier against another.

(ii) Commercial Marketing Techniques

(a) Fleet Sales

Important to the profitability of the marketing group of Texaco Canada is the ability to supply gasoline and diesel fuels to trucking fleets operating in the transportation, construction, mining, forest products and manufacturing industries. The methods by which products are supplied vary with the many kinds of potential buyers. Apart from the small, single unit truckers that may be best served at the retail level, potential buyers include all types of operators.

There are two types of trucking fleets to which Texaco Canada sells diesel fuel: local fleets and long distance highway fleets. Each has different service requirements.

Some highway truckers demand full service, which includes provisions for fueling and restaurant facilities, tire sales, repair facilities and, in many instances, sleeping quarters. Other highway truckers and many local fleets are interested in using self service keylock facilities.

A Texaco Canada keylock facility is a fixed installation consisting of a key operated fuel dispenser and storage tanks on property owned or leased by the company. This facility provides service to commercial accounts which have supply agreements with the company. The system contributes to the company's efficiency by allowing small, existing accounts to pick up fuel at keylock locations, thereby reducing the costs associated with delivering product.

A keylock system is most advantageous to the smaller fleet operations which maintain their own trucks in areas where no Texaco retailer with suitable facilities is located. The system also serves larger fleets where the location suits their particular needs.

Keylocks are typically located in urban industrial areas or on heavy commercial traffic routes where sales may be generated by the convenience associated with self serve fuel availability twenty-four hours a day. Typical sources of traffic include:

- traffic in and out of new industrial parks,
- general freight traffic in a warehouse district,
- pulp haulers to a pulp mill,
- lumber haulers,
- independent dump truck operators,
- cattle haulers to stock yards and meat packing houses, and
- grain haulers to elevators.

Texaco Canada's cardlock facility is a refinement of its keylock system. It is a modern, electronically controlled fueling system that has been designed to meet the demands of the trucking industry in the 1980's and beyond. Through the use of an individually coded card and associated security number, which can be assigned to a specific truck or driver, the fleet operator can obtain fuel at an unmanned cardlock location. Further security is provided since electronic programming restricts the size of each fill up. Protection against fraudulent use of lost or stolen cards is afforded in two ways:

- by immediate electronic cancellation of cards following notification to Texaco Canada, and
- by the individual security number which has to be used in conjunction with the card.

After fueling, a receipt may be obtained which provides details of the transaction, including location, card or truck number, time and date, volume of fuel picked up, and odometer reading. Texaco Canada's computer produces a weekly report for each cardlock customer, providing details of all transactions. This data may help the customer maintain accurate cost records for his operation, and it is therefore an important management tool for him.

Like the keylock, the cardlock system contributes to Texaco Canada's overall efficiency while eliminating the costs to the customer of carrying inventory and of maintaining storage tanks and fueling facilities.

(b) Negotiated and Bid Sales

Commercial accounts are acquired in two ways:

- direct solicitation and negotiation involving personal contact by a company representative, and
- indirect negotiation involving bidding on tenders called by prospective customers.

In pursuing its objective of acquiring and retaining commercial customers, Texaco Canada attempts to assure customer satisfaction, confidence and trust, and thereby gain customer loyalty. The factors contributing to the company's success in achieving these goals include:

- competitive pricing,
- security of supply,
- reliable delivery service,
- a wide range of quality products and service packages suited to customer demand and supported by quality control techniques,
- competent and qualified personnel to provide reliable information on products and their application and developments in the industry,
- accurate estimates of the purchasers' requirements of petroleum products, and
- development of a close working relationship between the company and the customer through a sincere, professional approach, promises backed by performance and ethical marketing standards.

In order to improve efficiency and performance in commercial marketing, Texaco Canada utilizes a commercial development plan (CDP). This marketing tool allows a Texaco Canada field representative to:

- acquire a knowledge and keep a record of the buyer's requirements,
- organize efficient coverage of his territory,
- determine a plan of action for each account, and
- control his utilization of time.

Some of the elements of the CDP are:

- a weekly action plan for organizing sales efforts,
- a geographic coverage of assigned territories to best utilize marketing time,
- a chronological bid list to ensure maximum opportunity to obtain new business and retain existing customers, and
- an annual sales forecast prepared on a quarterly basis to assist in attaining sales objectives.

When a prospective customer seeks a written quotation of price for a Texaco product, the company normally responds by providing a copy of a quotation product sale agreement. The standard quotation is expressed as a discount off posted commercial consumer tank wagon price, as of the date of the quotation. The quotation is stated to be effective for a specific period of time, subject to certain general provisions, including a price adjustment clause.

Federal Government departments, will not sign sale agreements as a matter of policy. Accordingly, discounts or net prices quoted to Federal Government departments vary depending on the competitive conditions existing at the time of the quotation.

Texaco Canada is sometimes willing to enter into long term agreements. The company will guarantee supply of a specified volume for periods up to 5 years, but will not guarantee a price over that term. Prices are based on current market conditions and are subject to change according to the price adjustment clause in the contract.

(c) Loan and Sale of Equipment

For many years Texaco Canada was willing to lend vending equipment to customers to help finance their commercial endeavours. In return, Texaco Canada received long term supply agreements. The company followed this policy because it believed that volume and net profits would be increased by providing such financing.

The trend toward limiting equipment loans began a decade ago. With the advent of the sharp crude cost increases of 1973-74, government intervention in the setting of posted prices, rising interest rates and inflation, it was necessary for the company to carefully examine all cost factors involved in the marketing of its products. There was an increased demand by customers for the very latest in high velocity and continuous duty pumps, remote controls with electronic devices, keylocks, etc. The high cost of such equipment and the cost of large discounts needed to attract and hold business led the company to change its policy in 1974 in order to transfer such investment directly to the customer. Texaco Canada has, however, continued its policy of financing new vending equipment for commercial consumers who indicate a desire to purchase such equipment through the company. Such sales are made for cash at Texaco Canada's cost or are financed over a period of time at approved rates of interest.

(d) Commercial Pricing Policies

The commercial pricing practices of the company recognize the need to market all of the products obtained from a barrel of crude oil in a way designed to achieve an overall contribution to profitability while maintaining balance in its refineries. In order to remain competitive with other refiner-marketers, and maintain or increase its share of the market, Texaco Canada is sometimes willing to offer substantial discounts from its commercial consumer tank wagon price.

Other factors which may influence the approach to pricing in different areas at specific points in time pertain to an assessment of the strengths or weaknesses of competitors:

- Are they believed to be net buyers of processing in the area, or do they have surplus refining capacity?
- Are they thought to be competitive in distribution costs from their base supply point, or is this an area in which their margins may be thin?
- Is it possible to discern their approach to pricing?

Current market conditions demand that sales personnel work diligently to maintain present customers and attract new ones. To provide a degree of stability, sales are designed to achieve a balance of accounts with emphasis on:

- accounts which will purchase their total requirements of refined oils and lubricants from Texaco Canada,
- accounts from different commercial and industrial sectors, to insulate the company from a severe downturn in a particular sector,
- accounts that will commit their volume requirements beyond one year, and
- certain accounts to whom the company has an obligation to supply, should supplies tighten.

In order to maintain certain highly desirable accounts, the company may sometimes decide that it is necessary to increase discounts to meet competitors' efforts aimed at obtaining these customers. Such action may be necessary if the company is to market successfully the output of its refineries and maintain efficient production levels. Costs are constantly monitored on a customer by customer basis. Because delivery costs continue to be important in competitive bidding, determination of such costs is crucial.

Delivery costs are directly related to the size of the customer's underground storage tanks and the delivery distance involved. These factors are therefore integrated into the discount structure. This accomplishes two things: it tells the customer that he can obtain lower prices by the installation of larger storage facilities, and it tells Texaco Canada where it can afford to negotiate a larger discount, should adjustments become necessary. This discount structure rewards the good delivery locations with larger discounts and encourages poor delivery locations to consider installing larger storage facilities.

III. The Marketing of Burning Oil

A. Introduction

Table IV-11 shows that Texaco Canada markets burning oil both directly and through resellers. Direct retail and commercial sales represent approximately 71 percent of the total. Wholesale sales to resellers represent the remaining 29 percent. Chart IV-C indicates the company's total burning oil sales and market share for the period 1957 to 1980.

Texaco Canada sales of burning oil between 1971 and 1981 declined approximately 40 percent. This decline was due primarily to conservation by consumers, the federal government's off oil program, the general downturn in economic conditions, and the loss of one major reseller customer in 1977.

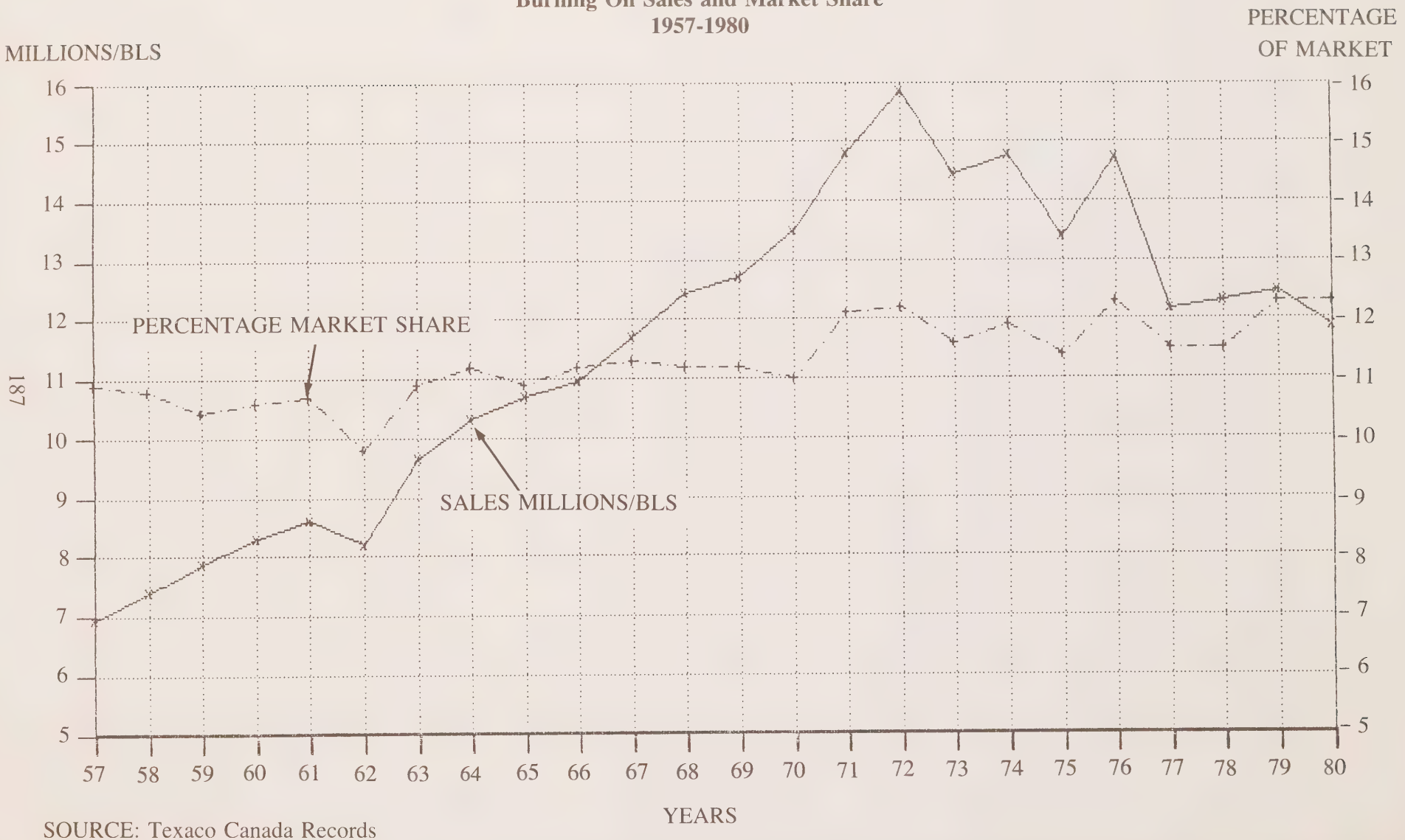
TABLE IV-11

Texaco Canada
Burning Oil Sales by Class of Trade
1981

	Percent of Total Sales	
Retail		
Direct to consumers through distributors	21	
Direct to consumers through salary operated retail fuel oil	30	51
Wholesale		
To branded resellers, consignees, tank truck dealers, franchisees	8	
To unbranded resellers - jobbers	21	29
Commercial		
Governments: Federal	2	
Other	5	
Contractors	2	
Manufacturers	4	
Other, including railways, marine, domestic aviation, automotive fleets and mining	7	20
		100

CHART IV-C

Texaco Canada
Burning Oil Sales and Market Share
1957-1980



SOURCE: Texaco Canada Records
Statistics Canada Catalogue 45-004

B. Retail Sales

(i) Introduction

Texaco Canada's marketing department operates four home comfort centres in the Province of Ontario and two in Quebec. These centres are established for the sole purpose of supplying furnace oil and associated services to residential and commercial customers.

These centres are located in Toronto, Hamilton, Ottawa, Sudbury, Montreal and Quebec City. Customers receive their supply of fuel either directly into their storage tanks by tank truck deliveries, or through a domestic underground pipeline system which is fed from other large underground storage tanks located centrally within a housing subdivision.

Tank truck deliveries are metered as the delivery is made, and the customer receives a copy of a ticket imprinted with the meter reading. Domestic pipeline customers have product meters inside their houses that record the throughput to their heating system, and customers provide Texaco Canada with readings each month on the meter cards it provides for this purpose. Currently the company has 5,400 domestic pipeline customers, 84 percent of whom are located in Ottawa and the balance in the Toronto area.

Most deliveries to Texaco Canada's customers are scheduled automatically on a degree day system, designed to project delivery dates based on historical individual consumption rates, weather conditions and storage capacities. The objective is to ensure that consumers have a continuous supply of fuel, while at the same time maintaining a delivery scheduling system which provides optimum efficiency and utilization of the company's tank truck fleet.

Since the mid-1980's, the number of dwellings that use fuel oil for heating, has been declining. The reduction has been due primarily to the displacement of oil by other fuels, principally natural gas. Extensive advertising programmes and government subsidies under the off oil and home insulation programmes also contributed to the decline in the numbers of customers and volume of oil sold.

Major developers or builders of new homes have installed few oil fired furnaces since 1967. Instead, systems using natural gas or occasionally electricity are being installed. The retail burning oil market, therefore, is essentially limited to the number of dwellings that presently use oil. Any increase in Texaco Canada's sales volume is mainly dependent upon its ability to convince oil customers to switch from their present suppliers, and its ability to acquire other sources of fuel oil business.

(ii) Sales Programmes

Texaco Canada sells burning oil directly to consumers through its own retail fuel oil facilities and through independent heating oil distributors. The nature of the heating oil distributors' operations has been discussed above.

Texaco Canada employs various marketing programmes to attract and keep retail heating oil customers. The most important of these programmes are discussed below.

(a) Automatic Delivery System

Any retail fuel oil marketing system must be designed to ensure that the customers' oil tanks do not run dry. Texaco Canada operates a computerized degree day delivery system that is designed to schedule deliveries when calculations project that consumers should have used

70 percent of the oil they had in storage. The 70 percent guideline allows for fluctuations in actual consumption rates, and compensates for conditions that may prevent the company from delivering on the exact scheduled date.

Deliveries are made both by company employed drivers, who use tank trucks owned or leased by the company, and by independent delivery agents, who use their own tank trucks. Generally, company drivers are dispatched each day to deliver fuel to a number of customers located in the same geographic area. This assists in improving productivity and allows drivers to become familiar with the streets and peculiarities of their areas.

(b) Burner Service

Texaco Canada also provides service for its customers' furnaces. As a result, the company makes every effort to ensure that the appearance of its servicemen, the quality of their work, and their attitudes on the job are conducive to the promotion of customer satisfaction. Each man is equipped with proper tools and furnace testing instruments and is trained in their use. Servicemen are also assigned a sufficient volume of oil burner parts in their truck inventories to minimize the risk of having to return to the shop for parts. Technological advances in the heating equipment field and the introduction of new products have required the company to devise extensive training courses so that all service personnel are able to assist customers with their present and future heating requirements in a professional manner.

The speed with which customers' requests for burner service are handled is also vital to stimulating customer confidence. In the vast majority of cases, servicemen arrive at customers' homes within 1¼ hours from the time the request was placed.

Burner service is handled by company employed servicemen, who receive assignments via a two way mobile radio system, and by independent service contractors who receive assignments by telephone calls to their places of business. In some cases, contractors also operate independent two way communications systems, which form a part of their own business operations. As a rule, contractors are assigned specific territories in suburban and rural areas, leaving the central and urban areas for company servicemen.

Burner service and annual heating system maintenance work is charged to customers at competitive rates, with the cost of replacement parts being charged as an extra cost. As a convenience to customers, Texaco Canada has designed several optional plans that include some or all service for fixed annual fees. These plans are very popular since they relieve the customer of the uncertainty of maintenance costs, and also ensure that the heating system is routinely serviced and maintained at peak operating efficiency.

(c) Heating Equipment

Through arrangements with manufacturers, Texaco Canada sells branded lines of furnaces, boilers and accessories. The equipment is carefully selected to ensure that it meets the company's basic requirements of reliability and efficiency of performance. It is also the company's practice to test equipment thoroughly, both in a test facility at one of the company's comfort centres, and in the field, before labelling it with the Texaco name.

Installations are performed by independent heating contractors, who purchase the equipment from Texaco Canada. The customer has the option of paying the contractor or, if

financing is required, Texaco Canada will provide such financing for the customer for a term of up to 5 years.

The company also markets a full line of accessory equipment such as humidifiers, dehumidifiers, and electronic air cleaners. It has been active in the upgrading of customers' existing heating systems with efficient, fuel saving flame retention oil burners and other accessory equipment designed to reduce fuel consumption.

In 1964, Texaco Canada introduced a programme under which it would rent highly efficient and reliable oil fired water heaters for a very nominal fee. Customers were required to sign a lease agreement for a minimum term of 3 years. At its peak, there were approximately 5,000 units leased to retail fuel oil customers.

(d) Budget Payment Plans

In order to ease the burden of high fuel bills during the core of the heating season, Texaco Canada offers an equal billing system that spreads payments equally over 12 months. This system also allows for the price of service plans to be included in the total annual estimate. Customers are given the choice of remitting a payment each month, sending a series of postdated cheques once a year, or authorizing Texaco Canada to make monthly withdrawals from their bank account.

(e) Fuel Conservation

One of Texaco Canada's most effective marketing programmes has been the assistance it provides its customers in reducing fuel consumption. This programme is important because it may help a consumer determine whether it is advisable for him to convert to gas or electricity. The programme has a number of elements, some of which qualify for government grants, or financial assistance from the company:

- Insulation — Texaco Canada encourages insulation programmes.
- Combustion Efficiency Testing — Texaco Canada will perform tests to check the heating equipment and make necessary improvements or adjustments required to lower fuel costs.
- Flame Retention Burners — These burners are supplied at competitive prices to customers who wish to improve their heating equipment. Combustion efficiency can be improved and fuel consumption reduced.
- Heat Pumps — Heat pumps, which may yield significant savings in heating costs, are available through the company.
- Plenum Heaters — A plenum heater, which provides supplementary electric heating in conjunction with the existing oil or gas furnace, is also available from the company. In milder weather, the plenum heater can provide total heating more efficiently than a furnace. In colder weather, oil or gas is more efficient.

C. Wholesale Sales

(i) Introduction

In addition to its sales of burning oil directly to consumers through retail fuel oil facilities and heating oil distributors, Texaco Canada sells a large volume of this product at wholesale to resellers. Those who purchase burning oil from the company for resale to

consumers can be conveniently grouped into two categories: branded resellers (including franchisees, tank truck dealers, and full line distributors) and unbranded resellers or jobbers. The nature and mode of operation of each of these types of resellers has been discussed previously with respect to gasoline and diesel fuel and need not be repeated here.

Several jobbers testified that they had difficulty obtaining supplies during periods of shortage. Texaco Canada's position, as described in more detail below, is that it dealt equitably with all its customers, even in periods of short supply.

It is true, however, that during the period 1971 to 1981, the volume of Texaco Canada's sales of burning oil to jobbers as a percentage of total sales of this product decreased from 27 percent to 21 percent. In Ontario, the decline was from 49 percent of total sales in 1971 to 27 percent in 1981, due in large part to the loss to a competitor of one large jobber customer in 1976. In Quebec, the decrease was from 44 percent to 22 percent of total burning oil sales even though the number of jobber customers increased from 18 in 1974 to 65 in 1980 and the volume sold to jobbers increased from 25 million gallons to 31 million gallons over the same period. More generally, these decreases reflect the overall decline in fuel oil business and the increased emphasis on other classes of trade. The company did not adopt any policy of discouraging jobber business.

TABLE IV-12

Texaco Canada

Burning Oil

Percentage Sales to Jobbers vs. Total Sales

Year	Percent Ontario	Percent Quebec	Percent Canada
1971	49	44	27
1972	39	39	25
1973	34	42	28
1974	33	44	29
1975	35	40	28
1976	38	32	31
1977	27	32	24
1978	23	32	22
1979	30	28	24
1980	30	24	23
1981	27	22	21

(ii) 1979 Shortage

During the regional hearings, many jobbers commented that one of their main concerns was security of supply from the major refiners. The situation referred to most often was that of 1978 and 1979 when petroleum products, and burning oil in particular, were in short supply. The jobbers testified that they were afraid that their supplies would be restricted and that they would lose customers.

The jobber witnesses conveniently ignored the other side of the story. In times of abundant supply, a situation that has occurred often in the Canadian market and, indeed presently exists, many jobbers take advantage of the favourable supply situation and obtain very favourable supply terms. During such periods, of course, refiners must offer sizeable discounts to attain high sales and utilize refinery capacity at efficient levels. When supplies are abundant and discounts high, jobbers typically attempt to buy their requirements from suppliers on a spot basis in order to avoid tying themselves to any one supplier. Some jobbers seek redundant contractual arrangements with more than one refiner. As a result, a jobber's combined contractually stated requirements from several such contracts often far exceed his actual needs, thereby giving him the option to shop for supply and take advantage of the best prices available, since intense competition among suppliers makes enforcement of contractual minimum volume requirements impracticable. Table IV-13 shows the result of this practice in one market, Quebec, by comparing Texaco Canada contractual supply obligations during 1980 to actual liftings.

TABLE IV-13

Texaco Canada

Comparison of Contract Volumes and Actual Liftings of Burning Oil in Quebec

1980

Selected Jobbers	Contract	Actual Liftings	Shortfall	Liftings as a Percentage of Contract
Courtemanche	1,400,000	687,463	712,537	49
Ravenda	400,000	96,305	303,695	24
Economes	2,700,000	1,058,773	1,641,227	39
Cortina	1,000,000	294,676	705,324	29
Bellemare	2,000,000	1,496,077	503,923	75

Notwithstanding this practice, jobber witnesses have testified that they wanted assurance from their suppliers that their total requirements would be available to them during times of short supply. In other words, jobbers seem to believe that they are somehow entitled to the benefits of long term contracts during periods of short supply, even though they are unwilling to abide by the terms of such contracts in periods of abundant supply.

It is Texaco Canada's policy to endeavour to supply its customers on an equitable basis and to continue to supply them according to current requirements, while not arbitrarily denying any contract renewals. Through tight supply periods, Texaco Canada attempted to arrange supply of product with other refiners to meet its customer demands, if necessary. The company generally seeks to treat all its customers equitably whether they have a written contract or not. Texaco Canada's policy was clearly outlined in a telegram from J.C. Wattie, Vice-President Marketing, to F.D. Connors, Ontario Division Manager in 1973 dealing with possible short supply of middle distillates:

> Present customers may continue to be supplied with these products but at a delivery rate not in excess of their normal seasonal, monthly, volumes as determined by sale agreement or purchase order or past

experience and knowledge or requirements as currently set out in estimated requirements. On renewal business there must be no commitment to increase monthly deliveries over current rates or over like month in preceding year.

These instructions apply equally to commercial consumer, wholesale, and subsidiary company accounts, except that, while there are temporarily to be no new household accounts accepted, there shall not be any restriction on deliveries to present household customers. (Document #50573)

As can be seen by this action, the interests of the jobber and the consumer are considered during periods of temporary supply problems. It is not in the best interest of the company to deny supply to either group, since shortages are viewed as temporary.

Early in 1979, there was a shortage of burning oils in the province of Quebec. The Federal Government, concerned about the handling of this situation by major oil companies, ordered an investigation into the matter. In June 1979, the *Report on the The Investigation of Marketing Practices for Petroleum Products* was released by the Honourable Ray Hnatyshyn, Minister of Energy, Mines & Resources, Ottawa, Ontario. (R.T.P.C. Exhibit C-198). The *Report* expressed three main concerns:

- Have refiners increased their share of the residential heating oil market at the expense of the independent resellers?
- Have refiners allocated product shortages equally to all classes of trade?
- Have refiners' prices discriminated against resellers by granting discounts to residential accounts while raising wholesale prices?

Texaco Canada's records indicate that in Quebec between November 1978 and February 1979 sales to independent resellers increased when compared to the same period in the previous year and, that the increase occurred at a rate significantly higher than the rate of increase of overall sales to the company's residential market.

TABLE IV-14

Texaco Canada

Analysis of Sales of Burning Oil

Quebec

	Jobbers (Independent Resellers)	Texaco Residential (Retail Fuel Oil and Heating Oil Distributors)	Texaco Branded Resellers
		Millions of Gallons	
November 1977 to February 1978.....	21.4	37.5	4.0
November 1978 to February 1979.....	24.9	38.2	4.6
Increase.....	16%	2%	16%

Texaco Canada did not cut back volumes to independents. In view of the unusual and extended cold period (15 percent below average for 20 consecutive days), the company

implemented a programme in February 1979, under which the company respected contracted volumes and historical lifting patterns. All resellers, branded or unbranded, were monitored to determine their daily pick ups. Maximum daily liftings for the months of February and March 1979 were based on a prorated monthly volume total determined with reference to the last five years' degree day averages. On this basis, customers were limited to 15 percent of their total yearly volumes (as specified in contracts or historical lifting patterns) in February and 13 percent in March.

Monitoring of liftings was instituted to ensure that supplies were available to all customers. The system prevented overlifting by some, to the detriment of others. Available supplies were spread equally over all classes of trade. Texaco Canada's retail fuel oil units and branded distributors were instructed to deliver a maximum of 75 gallons (about 40 percent of the customer's tank capacity) to the company's domestic accounts while commercial accounts received 50 percent of their capacity. This action continued in effect for approximately three weeks when the situation began to ease in March 1979.

Pricing of products during the shortage was also affected, but all classes of customers were treated equitably. Residential accounts who were receiving volume discounts (13 percent of the total number of accounts) were restored to full price on January 23, 1979. Maximum discounts to high volume commercial accounts were set at $.03 per gallon. Table IV-15 sets out the price increases to the household sector for burning oil.

TABLE IV-15

Texaco Canada
Retail Pricing of Burning Oil
Montreal

Date	Retail Price	Increase
	cents per gallon	cents per gallon
Mar. 2/78	58.2	
Aug. 30/78	61.8	3.6
Jan. 3/79	62.1	1.4
Apr. 10/79	64.4	1.2
Jun. 23/79	65.4	1.0

As the *Report* concluded:

> Operating margins for independent resellers, measured as the difference between average residential retail prices and average wholesale prices, were at the beginning of the current heating season, in the order of 12¢ to 13¢. The more rapid rise of wholesale prices has brought these margins down to the 10¢ to 11¢ range. This level is judged to be adequate to cover the operating costs and profit requirement of an efficient reseller. (pg. 12)

Further indication that Texaco Canada's pricing policies did not adversely affect its jobbers can be seen from the discounts which they were able to offer their customers. During

the period that Texaco Canada was reducing or eliminating discounts, jobbers were able to offer substantial discounts to associations.

TABLE IV-16

Quebec Market

Discounts Offered to Associations

Supplier	Association	Discount cents per gallon
F.R. Fuels	Westmount Municipal Association	3.0
Ouimet-Gobeil	Association des Propriétaires de St.-Bruno	4.5
Elf	Burmah-Castrol Canada Limited	4.6

The *Report* also described certain other actions by Texaco Canada designed to ensure secure supply to householders and resellers alike.

> Texaco supplied hi-pour furnace oil for low-pour wherever this was possible and agreed to by the customer. During February and March 1979, Texaco provided 120,000 barrels [4.2 million gallons] of furnace oil on an exchange basis to be returned later in 1979 to two other refiners to supplement their supply. To help alleviate the general supply shortages in Quebec, the Ottawa market which normally receives product from Montreal was supplied out of Nanticoke and furnace oil was moved from Toronto to Montreal at an extra cost of about 5¢ a gallon. (pg. 10)

It is clear that Texaco Canada attempted to provide petroleum products on an equitable basis to all its customers, notwithstanding the overall shortage facing the company. In a letter dated July 11, 1979 from Mr. Hnatyshyn to Mr. R. W. Sparks, President & Chief Executive Officer, Texaco Canada Inc., Mr. Hnatyshyn concluded after reviewing the findings of the Energy, Mines & Resources *Report* "that your company had made a commendable effort in supplying its reseller customers, that a considerable volume of fuel oil was provided to other refiners and that potential reseller margins in the Montreal area were not unreasonably reduced."

The *Report* went on, at page 12, to state:

> The problem of independent resellers is the problem of understanding the changes which are taking place in the industry. Independent resellers have for a number of years enjoyed very favourable product supply conditions.

and further, at page 13:

> Independent resellers who wish to protect their long term interest must be prepared to respond to change in supply conditions . . .

Finally, the *Report* concluded, at page 14, that:

> If the allocation of product becomes necessary, refiners and terminal operators should allocate on the basis of historical purchases during at least the previous heating season unless this basis is superseded by new contractual commitments or cancellations.

Texaco Canada follows this policy to ensure adequate and fair allocations of supply to its customers.

Many independent resellers have reported to the Commission that during the 1979 fuel oil shortage in Quebec, they lost a considerable number of accounts, presumably to major refiners. Texaco Canada, in the return of information to EMR, in 1979, reported its position with respect to lost and gained accounts:

TABLE IV-17

Texaco Canada
Retail Fuel Oil
Accounts Gained and Lost
Montreal and Quebec City

	Montreal	Quebec City	Total
Number of accounts, November 1, 1978	25,909	4,180	30,089
Number of accounts gained	1,717	159	1,876
Number of accounts lost	1,824	234	2,052
Number of accounts February 28, 1979	25,802	4,105	29,907
Net gain (loss)	(107)	(75)	(182)

Texaco Canada also reported its position with respect to commercial accounts gained or lost in Quebec City during the same period:

TABLE IV-18

Texaco Canada
Commercial Burning Oil
Accounts Gained and Lost
Quebec City

	Number Gained from	Number Lost to
Independents	4	12
Regional refiners	2	4
Major refiners	4	2
Unknown	4	17
Total	14	35

As can be seen from Table IV-18, competition for customers continued throughout this period. Accounts were both gained from and lost to all classes of competition.

D. Commercial Sales

The manner by which Texaco Canada markets burning oil to commercial accounts is essentially the same as that utilized in respect of commercial sales of gasoline and diesel fuel.

Its customers include governments, transportation carriers and manufacturers, and sales are made typically through the bid and quotation process or, to a lesser extent, through direct solicitation and negotiation. The marketing techniques and pricing policies involved in commercial sales were discussed in detail under commercial sales of gasoline and diesel fuel.

Texaco Canada wishes to respond specifically, however, to complaints by some jobbers to the effect that, at times, refiners have sold products, particularly burning oil, to them at prices that did not allow them to compete successfully with the refiner for sales to commercial consumers. Texaco Canada does not have a policy of selling burning oil, or any other product, to jobbers at prices designed to preclude them from competing with the company for commercial accounts. Prices in each market and the success in acquisition of customers are determined by competition.

It is difficult to generalize about the factors that might affect the relationship between jobber prices and commercial prices at any time. Prices in each market will be affected by, among other things, the costs of serving the respective customers, the size and duration of the contracts, and the assurance that the seller receives that the sale will be part of a continuing relationship. The experience in Quebec, discussed above, demonstrates that, even in times of shortage, jobbers can purchase product on terms that allow them to compete for resale customers.

IV. The Marketing of Residuals and Other Petroleum Products

A. Introduction

Texaco Canada also must sell the numerous other products that its refineries produce. Several marketing programmes have been developed over the years to ensure the sale of these products, which are mainly used by commercial and industrial customers.

One such programme is called Texaco Canada's engineering service. It is applied in a wide variety of situations in order to provide advice to the customer about his use of petroleum products. The programme often involves studies of petroleum product use designed to maximize the customer's production efficiency. In addition, technical assistance is available to Texaco Canada's customers through the technical division of the refining department.

In summary, Texaco Canada's engineering service encompasses:

- recommendations concerning the use and application of petroleum products,
- surveillance of product quality and suitability for intended uses, and
- handling of product complaints and testing of samples.

Its activities are designed to:

- enhance sales and revenues under current market conditions by selling on the basis of a total product and service package,
- provide consultation with all market groups in the marketing department pertaining to product quality, application and use,
- assess the need for new product or package development to better exploit market potential or to modernize the product line, and
- consolidate the company's total product and package line in order to produce optimum earnings with the minimum number of product types, grades and packages, consistent with the needs in the marketplace.

Some of the more important on going engineering service programmes available to customers of Texaco Canada are:

- Texaco organized lubrication and equipment maintenance (previously referred to as stop loss) has been a company programme for twenty years. It is established in cooperation with the management, maintenance and operating personnel of a plant to organize and control the lubrication of mechanical equipment. The programme extends equipment life while reducing the cost of maintaining unneeded inventories of petroleum products. It is also designed to minimize revenue losses from unscheduled down time of production equipment due to misapplication of lubricants.
- The lubricator's training program consists of 16 mm films and 35 mm slide and cassette audio visual presentations, acetate charts, and handouts designed to assist customers in the training of their personnel, and more specifically to give lubricators a better understanding of the types of lubricants, their function and applications.
- Product service includes the testing of samples which is intended to help customers improve their use of fuels and lubricants. This service also includes Texchek, an oil analysis service which provides recommendations for preventative maintenance of engines and equipment.
- A *Product and Service Guide* provides customers with a convenient referral binder of Texaco Canada information consisting of pertinent technical material and data sheets.
- The *Texaco Products Digest* is a comprehensive guide to the typical properties and applications of the various products sold by Texaco Canada. This digest is regularly revised and reprinted.

B. Sale of Lubricants

Texaco Canada imports or purchases its lubricant base stocks. The company manufactures greases and blends lubricating oils in Toronto and Edmonton and distributes products from these points.

Lubricating oils and greases can be divided into two main categories: automotive and industrial products. Automotive products comprise motor oils, transmission fluids, gear oils and automotive greases. The range of industrial products is much wider and includes hydraulic oils, circulating oils, compressor oils, cutting and process fluids, various grease products and also a broad range of speciality materials designed and produced for specific industrial purposes. These products are marketed to a wide variety of commercial and industrial accounts.

Texaco Canada's field sales staff is backed by experienced sales engineers, specialized technical staff in its laboratories, and its technical service division. This expertise is necessary because industrial equipment has become increasingly sophisticated, giving rise to complicated lubrication problems. In addition, the escalating cost of petroleum lubricants has forced many larger users to evaluate the lubricants they use and how they use them. This has resulted in the need to develop new products, including various types of synthetic and semi-synthetic materials.

The marketing of industrial lubricants is a very competitive business. In order to successfully market such products, it is necessary to provide a broad range of services in a

wide variety of situations. Such services are particularly important because the purchase price of lubricants is only a small portion of the cost of lubrication which, in turn, can have a dramatic effect on the cost of a customer's operation and production, such as down time, labour costs, and cost of machinery repair.

The company has been innovative in developing other marketing techniques to attract and keep lubricant customers. For example, Textainers were introduced by the company to provide a modern, economical way for the customer to handle and store Texaco lubricants. The Textainer consists of a molded polyethylene translucent liner, with a capacity of approximately 250 gallons, which is protected inside a metal frame and rests on a shock absorbing cushion. When a new Textainer is filled, it is dedicated to one product only and is so marked. It is specially designed to prevent rain, condensation or other material from contaminating the product. The Textainer is totally weatherproof and does not rust or corrode. Use of Textainers greatly reduces the risk of accidents, and the chance of misapplication of the product is lowered.

C. Sale of Aviation Fuels

With the advent of jet liners in the mid-1950's, the petroleum industry was forced to restructure its programmes for the sale of aviation fuels. As the airlines and military took delivery of their new jet equipment, the demand for aviation gasoline began to dwindle while the demand for jet fuels of the gasoline or kerosene type increased rapidly. Most aviation fuel is sold on a bid basis and competition is intense.

D. Sale of Residual Fuels (Heavy Fuel Oil)

Typically, these fuels provide heat for industrial plants and other large buildings, generate electricity in competition with gas and coal, and power ships. Heavy fuel oils are given the designations Grades 4, 5 and 6, while in the shipping industry, the heavy fuels are known as Bunker C, generally corresponding to Grade 6 fuel oil. The largest single user of residual fuels is the electric power generating industry, which consumes about 40 percent of the available residual fuel.

A major objective of the modern refinery has been, and continues to be, conversion of as much of the refinery's output as possible into gasoline and other distillate products. The steady increase in the use of catalytic cracking since the mid-1960's has had the effect of decreasing the percentage yield of residual fuels as well as changing their composition. As a result of this new technology, the remaining oil which was sold as residual fuel became heavier.

Residual fuels have two major product competitors in the industrial fuels market: natural gas and coal. Natural gas, which is now available in much greater volumes, has begun to have a noticeable impact on residual fuel oil consumption and, therefore, pricing. This decline in the consumption and prices of residual fuels has been, in no small part, due to the Federal Government's off oil programme.

The marketing of residual fuels represents one of Texaco Canada's more difficult tasks. It is a reality of the refining process that if the company produces gasolines, diesel fuels, and other refined oils, it will also have to sell the associated residual fuel production.

Texaco Canada exports residual fuels only on a spot basis, usually during winter months when navigation is closed and refinery balance containment problems arise. The company has

not relied heavily on exports to balance refinery runs and minimize inventory levels because:

- the granting of export permits is subject to the discretion of the NEB, and
- generally export sales result in realization of a lower revenue per barrel than is obtainable in the domestic market.

Most of Texaco Canada's heavy fuel production is, therefore, sold domestically. Most goes to large volume accounts such as the pulp and paper and steel making industries, and to utilities. The prices obtained for these sales are determined in a highly competitive market where each seller realizes that it must dispose of its available supplies at the best price it can.

As a result of comprehensive market studies, Texaco Canada has concentrated its residual fuel marketing efforts in areas which are not likely to have competing natural gas distribution systems for some time. The company has also identified industries which may more profitably utilize residual fuels as opposed to other forms of energy.

Many large volume industries in Quebec and the Maritimes are able to accommodate deliveries of residual fuels by marine tankers. Texaco Canada must compete for these accounts not only with other Canadian refiners but also with fuel imported from offshore. Even taking into account import taxation measures, the landed cost of imported products has often acted to erode market prices for Canadian refined residual fuels.

Heavy fuel oils can successfully be sold to the shipping industry. Texaco Canada's marine sales are part of a worldwide service to the international marine customer provided by Texaco affiliates around the world.

E. Sale of Petrochemicals

Texaco Canada entered the petrochemical field in 1961 when it became the second producer in Canada of benzene from petroleum. Thereafter, the company began production of toluene and xylene, and in 1963 became the first Canadian producer of hexane. These four products are manufactured at Texaco Canada's Port Credit, Ontario plant. Feedstock for this plant comes via pipeline from the company's Nanticoke refinery. Texaco Canada also produces one solvent at its Edmonton refinery. It does not produce second generation petrochemicals.

All of Texaco Canada's petrochemical products are sold as industrial raw materials. Benzene is sold chiefly for the manufacture of styrene for the plastics industry. Toluene is used as a solvent in industrial coatings and as a reactant chemical for the manufacture of trinitrotoluene (TNT). Xylene is used as a solvent and for the obtaining of xylene isomers. Hexane is used primarily by the grain seed crushing industry for the extraction of vegetable oils, as well as in the adhesive industry.

Texaco Canada's petrochemicals are sold on the open market on a spot basis directly to consuming industries or through non-exclusive distributors. At present Texaco Canada produces and sells benzene, toluene, xylene and hexane, with distribution in Ontario, Quebec, Manitoba, Saskatchewan and Alberta.

Currently, seven distributors in Ontario and three in Quebec handle Texaco petrochemicals. They purchase at a discount off Texaco Canada's posted prices, with discounts based on volume purchases. Posted prices are determined by costs, competition, the state of the economy and the pricing of imports.

EXHIBIT IV-I

SERVICE STATION RENTAL RECORD REVIEW

RD 11 (81-02) R

S/S # _____ B/S # _____ S/E NAME _____ ADDRESS _____

RETAILER'S NAME _____

1. **MARKETING DATA**

TYPE OF S/S _____ BUILDING AREA _____ COMMERCIAL RATE $ _____

NO. OF EMPLOYEES F.T. _____ P.T. _____ OF WHICH _____ ARE MECHANICS

HOURS OF OPERATION — WEEKDAYS _____ SAT. _____ SUN. _____ BY-LAW YES ☐ NO ☐

CAR WASH YES ☐ NO ☐ IF YES, MAKE AND TYPE _____

TEXACO OWNED IN BAY EQUIPMENT YES ☐ NO ☐ IF YES, DESCRIBE _____

DESCRIBE ANY OTHER SPECIAL SERVICES (RESTAURANT, WHEEL ALIGNMENT, ETC.) _____

PRESENT RENTAL STRUCTURE _____

EFFECTIVE DATE _____ CONTRACTED RETAILER YES ☐ NO ☐

2. **GASOLINE SALES ANALYSIS**

	TOTAL SALES (LITRES)	COST/LITRE (S137A)	RETAILER'S GASOLINE MARGIN PER LITRE ($)
PREVIOUS CALENDAR YEAR		$	$
PROJECTED CURRENT YEAR (12 MOS.)			

3. **S.P.O.G. ANALYSIS**

	PREV. YR'S $ SALES (EXCL. P.S.T.) ENDING 19	% RATE	AMOUNT
PRODUCTS AND SERVICES		3%	$
CAR WASH/RESTAURANT			$
TOTAL S.P.O.G.			$
OTHER FORM OF RENTAL			$

4. **PREV. YR'S S-137A** — EXP. NORMAL $ _____ TAXES $ _____ RENT PAY. $ _____ TOTAL $ _____

5. **FULL SERVICE RENTAL CALCULATION**

YEARLY RENTAL = FACILITY CHARGE + PREV. YR'S TAXES + 3% S.P.O.G.

A. BLDG. AREA _____ × $ _____ RATE = $ _____

B. PREVIOUS YEAR'S TAXES $ _____

C. S.P.O.G. RENTAL (TOTAL CAPTIONS) $ _____

TOTAL ANNUAL RENTAL $ _____ ÷ 12

MONTHLY RENTAL $ _____

6. **C.R.A. RENTAL CALCULATION**

YEARLY RENTAL = FACILITY CHARGE + 50% PREV. YR'S TAXES + 3% S.P.O.G.

A. BLDG. AREA _____ × $ _____ RATE = $ _____

B. PREVIOUS YEAR'S TAXES $ _____ × 50% $ _____

C. S.P.O.G. RENTAL (TOTAL CAPTIONS) $ _____

TOTAL ANNUAL RENTAL $ _____ ÷ 12

MONTHLY RENTAL $ _____

7. **SECOND YEAR CALCULATION**

FACILITY CHARGE — $ _____ RATE EST. MARKET VALUE OF LEASED AREA $ _____

8. **THIRD YEAR CALCULATION**

FACILITY CHARGE — $ _____ RATE EST. ECONOMIC RENT @ _____ % $ _____

9. **TOTAL RENT COLLECTED LAST CALENDAR YEAR 19__.** $ _____

10. **TOTAL RENT TO BE COLLECTED CURRENT CALENDAR YEAR 19__.** $ _____

11. **METHOD OF PAYMENT — $** _____ PER MOS., OR $ _____ PER MOS., PLUS $ _____ PER LITRE

12. **CURRENT RENT PERIOD —** _____ 19__ TO _____ 19__

REMARKS: _____

AREA SUPERVISOR _____ DATE PREPARED _____

AREA MANAGER _____ DATE APPROVED _____

MARKETING MANAGER _____ DATE APPROVED _____

ORIGINAL (AREA SUPERVISOR) GREEN (REGION OFFICE)

EXHIBIT IV-II

Texaco Canada Inc.
Guiding Principles and Objectives

Following are the principles and objectives that guide Texaco in the administration and conduct of its corporate affairs:

To SELL top quality products at fair prices.

To PROVIDE consistently dependable and courteous service.

To MAKE a profit and pay a fair return to shareholders.

To CONSTANTLY seek new ways, through research and encouragement of new ideas, to develop better products and to increase efficiency and economy.

To MAINTAIN a high level of employee morale by recognizing the dignity, worth and potential of the individual, by paying compensation which compares favourably with others in the industry, and by providing safe and efficient working facilities and conditions.

To BE a good corporate citizen of Canada, the provinces and communities.

To MAINTAIN free and open channels of two-way communication between management and employees, customers, dealers, shareholders, governments and others having a proper interest in the affairs of the company.

To MAINTAIN the highest ethical and moral standards in the conduct of our affairs; and

To SUPPORT the system of free, competitive enterprise.

EXHIBIT IV-III

Texaco Canada Inc.
Position Analysis

Department: Marketing

Payroll Title: [District] Supervisor, Retail

Location:_____

Date Prepared:_____

Scope:

Operating under the direction of the [District] Manager is RESPONSIBLE for the Company's *retail* representation in an assigned geographic area.

Know-How

This position requires special knowledge of all aspects of retail petroleum marketing practices, as well as Company Retail Policies and Procedures. The individual must possess good administrative skills and must have the ability to exercise sound business judgment. He must excel in communicating to retailers for it is essential that this individual should quickly earn the respect and confidence of these retailers, in order to be in a position to provide effective business counselling. He must possess the ability to instruct retailers and their employees in carrying out sales and management functions.

The individual must possess managerial skills, and must have a thorough knowledge of accounting practices, personnel administration and advertising techniques. He must always keep current in his knowledge and understanding of retail profit centres and how they may be allied with the sale of gasoline.

Position calls for a University graduate, or an individual with equivalent practical marketing experience.

Major Activities

1. REPRESENTS the Company in all dealings with the Company's retail representation in his assigned area. This representation will include independent retailers who own their own facilities, as well as company owned and leased properties which will be either lessee operated, or operated by contracted agents.
2. RESPONSIBLE for all other Company properties within his assigned area, which may be leased for other than petroleum sales purposes.
3. ASSESSES and REPORTS the total retail potential of his assigned area, Texaco's current and desired share of this market. INITIATES plans for attainment of desired market share.
4. IDENTIFIES all possible opportunities for maximizing sales and earnings for the Company.
5. NEGOTIATES and RECOMMENDS contract agreements with independent retailers, which may involve the negotiation of cross leases and mortgages. He will provide counselling assistance in the construction of new facilities.

6. RECRUITS and TRAINS lessee retailers for company-owned and leased service stations operations. This training will involve all phases and areas of management and merchandising, designed to produce the required level of retailer sales and profitability in a dynamic marketing environment.
7. ESTABLISHES Retail Contracted Agents at company-owned and leased facilities, for the purpose of enabling the company to sell gasoline to customers on its own account, either by full service or self service basis. DIRECTS the total gasoline profit centre activity, including the preparation of monthly financial reports.
8. MANAGES the activity of generating rental income from company properties commensurate with investment. This will require that he develops a thorough knowledge of each individual service station market to determine the best use of facilities.
9. INVESTIGATES and REPORTS on any customer complaints within his area.

Mental Activity

The position requires an individual with superior knowledge of company sales and operating practices, policies, and procedures related to retail sales. It requires administrative skills and solid business judgment in administering a substantial company investment.

Accountability

This position is directly accountable to the [District] Manager.

A typical assignment could include up to twenty-five company-owned and leased locations involving the following potential.

— Gasoline sales of up to ten million gallons per year

— Other sales up to $1,200,000 per year

— Rental recovery of up to $300,000 per year

The total Company investment for which this individual may be responsible, may be as high as $8,000,000 in a typical assignment.

Job Conditions

Work pressure is constant with the urgency of consummating day-to-day business activities with a minimum of delay. Physical conditions are subject to normal travel hazards.

1975

PART V

EFFICIENCY IN MARKETING AND DISTRIBUTION

As Part III of this Submission demonstrates, much of the Director's case against Texaco Canada and the other major refiner-marketers rests upon the unproven assumption, repeated throughout the Green Books, that the majors' marketing system has been and remains relatively inefficient.

In this part of this submission, Texaco Canada addresses this allegation in more detail and submits some information about its own operations in order to show how utterly baseless the Director's allegations are.

In addressing the Director's efficiency allegations, this submission presents a necessarily general description of the kinds of cost saving innovations Texaco Canada has brought to its marketing and distribution systems. Texaco Canada cannot offer comparative data relating to its costs, because its competitors (including other refiner-marketers and independents) obviously do not share competitively sensitive cost information with it and because the allocation of costs to particular functions in a large organization (like Texaco Canada) is necessarily complex, controversial, and to some extent arbitrary. However, Texaco Canada believes that even a general description of some of the efficiencies it has been able to realize will show that its system of marketing and distribution is both innovative and efficient, and that many of the efficiencies it has been able to realize simply could not be matched by smaller organizations without the resources and expertise available to it.

I. An Appropriate Definition of Efficiency

Before examining specific information about Texaco Canada's operations, it is necessary to focus more closely on the meaning of the term efficiency. Much of the confusion engendered by the Green Books results from repeated attempts to compare the costs of entirely different service offerings. After making such comparisons, the Director argues that the more expensive offering is necessarily inefficient. This is economic nonsense.

In order to measure efficiency by looking solely at costs, it is essential that the two operations being compared provide service offerings that are, from the consumer's point of view, essentially interchangeable. If a more costly operation produces a combination of products and services for which a consumer is willing to pay a higher price, that combination is not necessarily less efficient. One marketing and distribution system is more efficient than another only if it generates the same consumer value, reflected in sales revenue, at less cost. Thus, the most efficient system is not necessarily the system with the lowest total cost, or even the lowest costs per unit of the product being distributed.

An examination of certain basic facts about the marketing and distribution of petroleum products, and the evidence gathered to date by this Commission, will make this point clear. The costs of a full service retail gasoline outlet offering high quality professional service will necessarily be higher than the costs of a simple gas bar designed only to sell gasoline. The full service outlet must pay higher wages to personnel, such as certified mechanics. Such an outlet will incur higher costs to train all of its personnel to perform high quality service. Real estate costs may well be higher if the station is located at a particularly convenient location. If

the station wants to provide a well maintained, attractive exterior, consistent with the high level of service provided to consumers, it may have higher maintenance and repair costs.

Delivery costs can also vary depending upon the type and location of an outlet. Delivering a small quantity of gasoline to a distant rural location obviously costs more per unit than delivering large quantities to a high volume urban station. Both distance from the refinery or terminal, and the volume involved in each delivery will affect costs.

The volume of product that can be sold at any particular outlet is perhaps the most important factor affecting unit costs. Since many costs are either fixed or do not vary proportionately with volume, a small rural station or a station that, because of its location, cannot generate high volumes will necessarily have higher unit costs.

Finally, the extent to which costs can be shared with other activities will have a dramatic effect on unit costs. If other profit areas can be developed without a proportionate increase in costs, it becomes possible to offer each service at a price lower than would be possible if the two operations were separate. The traditional example of this effect in gasoline marketing is the service bay operation of most full service stations. Such service facilities are able to generate revenues using many of the same facilities and personnel necessary to sell gasoline, and they therefore help lower costs. More recent, and more dramatic, savings have been provided by combining gas bars with convenience stores. Since the convenience store cashier can handle gasoline sales, the incremental costs for adding gasoline service to a convenience store can be quite low. Thus, Mr. Land of Happy Marts in Edmonton testified that his convenience store gas bars could retail gasoline at a break even margin of 2 cents per gallon.

Because of the wide variations in costs associated with different types of outlets, any comparison between costs of two different marketing operations is risky. Indeed, even average costs data can be misleading, because the two marketers being compared may have quite different types of facilities, in different areas, incurring different costs. For this reason, the testimony obtained in this proceeding from various independent marketers throughout the country discloses widely varying opinions about the amount of margin between retail and wholesale costs required to support a retail operation. The figures range from 2 cents per gallon for Mr. Land in Edmonton to testimony from dealers in the same city that nearly 19 cents was necessary to obtain a reasonable return (Testimony of K. Raddatz).

Since this testimony all related to urban operations, the differences would be even more dramatic if smaller rural stations were included. And since average cost data for large refiner-marketers includes information related to many different types of marketing outlets, it is quite difficult to make meaningful comparisons using such information.

The manner in which the relevant variables affect unit costs can be seen from Table V-1, following, which gives hypothetical examples of gasoline stations offering different types of service at different volume levels. The calculations demonstrate graphically that the most important factor affecting unit costs is volume. A comparison of the columns discloses that a retailer might be expected to save between 1 and 2 cents per gallon by cutting costs through elimination of credit cards and advertising expenses, assuming volume remained the same. On the same assumptions, switching from full service to self service might save about 1½ cents per gallon. But really large differentials can only be generated by increasing volume. As the examples show, a high volume self service station might have costs that are more than 10 cents per gallon less than the costs at a low volume full service station. Even stations offering

identical services can have radically different costs at different volume levels: full service unbranded outlets in the hypothetical can cut unit costs by nearly 7 cents per gallon by increasing volume from 300,000 gallons per year to 800,000 gallons per year.

While actual costs at particular outlets in particular areas might vary significantly from the figures shown in Table V-1, the relationship between volume changes and the level of costs would be similar in most real situations. The marketplace response to these basic facts will, of course, depend on the circumstances. In certain situations, consumers may be willing to pay more for the extra convenience and extra services that a low volume, full service station might offer. In other situations, the market will dictate a change in retailing style to emphasize lower prices and higher volumes instead of service and convenience. But no single answer will be satisfactory at all times or in all places.

TABLE V-1

Retail Gasoline Outlets
Estimated Expenses at Various Levels of Sale Volume and Services Offered

	Case A				Case B			
	Typical outlet with promotion and credit service				Typical outlet with token promotion and no credit service			
	Full serve		Self serve		Full serve		Self serve	
Annual volume '000 gallons	300	800	800	1,300	300	800	800	1,300
Estimated expenses per gallon								
1) Salaries and wages	3.5¢	3.5¢	2.0¢	1.2¢	3.5¢	3.5¢	2.0¢	1.2¢
2) Other retailing	3.0	1.1	1.1	.7	3.0	1.1	1.1	.7
3) Maintenance and repair	2.0	.8	.8	.5	2.0	.8	.8	.5
4) Investment related	5.0	1.9	1.9	1.1	5.0	1.9	1.9	1.1
	13.5	7.3	5.8	3.5	13.5	7.3	5.8	3.5
5) Credit service	1.0	1.0	1.0	1.0	—	—	—	—
6) Advertising and sales promotion	.8	.8	.8	.8	.2	.1	.1	.1
7) Overhead	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total expense	19.3	13.1	11.6	9.3	17.7	11.4	9.9	7.6

NOTE:

(1) All outlets operated from 7 a.m. to 7 p.m.

(2) Expenses estimated from 1980 data and an average retail price of $1.00 per gallon.

(3) Maintenance and repair expense includes some upgrading of facilities.

(4) For simplicity of presentation, other overhead for Cases A and B, and advertising and sales promotion costs for Case A, are treated as being entirely variable (i.e. as increasing in direct proportion to increases in volume). Actual costs in these categories will include some fixed costs and some variable costs.

II. Texaco Canada's Marketing and Distribution System

Notwithstanding these difficulties in measuring efficiency precisely, Texaco Canada is confident that its marketing and distribution systems are among the best in the industry. Indeed, an examination of some of the recent advances made by the company in introducing the cost saving advantages of new technology into its distribution system would support a conclusion that, in today's environment, Texaco Canada's own distribution system offers greater efficiencies than anything the independents have yet been able to develop.

A. Efficiencies in Distribution

Texaco Canada has always put great emphasis on minimizing distribution costs, which constitute a large proportion of the overall expense budget of the organization. As the cost of computer support has declined, the company has been able to take advantage of the newly available technology to reorient and reorganize its distribution system.

Prior to 1979, each terminal distributing Texaco Canada products in 18 major centres across Canada (accounting for about 40 percent of total company sales) maintained a staff to take customer orders and dispatch trucks. The system was totally manual and the elapsed time to handle an order, prepare the various forms and schedule a truck, averaged 10 minutes. Since 1979, this process has been centralized, and now order taking and fleet scheduling are handled out of a central facility in Toronto. Customers across Canada can call this facility, where orders are taken by trained personnel with the aid of an in house computer system. Delivery schedules are then created and transmitted to each terminal along data transmission lines. Order handling now takes one-tenth the time it used to, and, perhaps more importantly, more efficient delivery techniques have been developed to minimize costs and use equipment more efficiently.

Since Texaco Canada's fleet of trucks represents a fixed asset valued in excess of $12 million, with annual replacement costs of more than $2.5 million, efficient use of the truck fleet is essential. In recent years, new techniques have been developed to match fleet size optimally with seasonal shifts in demand (with some use of common carrier facilities to handle peak load requirements), and careful planning has allowed the company to obtain two full shifts' utilization of most of its trucks during each working day. Careful analysis of costs has also led the company, where appropriate, to close certain of its warehouse facilities and to rely on novel forms of direct delivery systems under which stage loaded tractor trailer combinations are used to carry trailers to distant locations direct from the refinery. Other drivers then pick up the trailers and use them to make deliveries, thus avoiding the costs of loading and unloading product and warehousing it.

Careful planning and use of computer facilities have also allowed Texaco Canada to redesign its fleet operations to conserve fuel. Wind deflectors and radial tires have been fitted to trucks, and rules have been devised to require drivers to drive at the speed that minimizes fuel use. This programme has reduced fuel use by 10 percent.

Savings of this sort would be quite difficult for a small gasoline station operator to match if he used his own trucks to pick up product at refineries or bulk stations. Only a high volume operation will support the kind of central planning that allows optimal fleet utilization under a system such as that used by Texaco Canada. Such a system is hardly evidence of the kind of inefficiency alleged in the Green Books.

B. Other Computer Applications

As early as 1959, Texaco Canada began centralizing its credit and collections functions in order to take advantage of newly developing computer technology. By 1969, the electronic data processing group was created, and this organization's name was changed, and its mandate broadened, in 1980, when it became the computer and information systems department.

Texaco Canada obtained its first digital computer (an IBM 1401) in 1961, and its equipment and facilities have grown and been modernized continuously since that time. Internal estimates indicate that computerization has saved tens of millions of dollars since the early 1960's.

Among the functions supported by Texaco Canada computer systems are complex expense and inventory control systems, and marketing and sales forecasting systems that allow more efficient utilization of both physical facilities and marketing personnel.

C. Travel Card Operations

One of the most effective marketing tools Texaco Canada has used through the years has been its travel card operation, which has managed to attract and retain customers while serving their needs for credit in a highly cost effective manner.

Although credit cards provide a service that consumers value, credit card systems are not inexpensive to operate. One of the largest single costs of a credit card system is the cost of write offs, the total loss to the card issuer caused by sales made to persons using lost or stolen cards and sales to persons whose accounts become uncollectible. In Texaco Canada's case, write offs constituted over one-third of its travel card operating costs during the years 1981 and 1982.

Texaco Canada has recently put into operation a sophisticated credit authorization system which should result in a drastic reduction of these costs. With technology not yet in use by any of its competitors in Canadian gasoline marketing, Texaco Canada is installing a data communications network that will link over 1,300 high volume outlets to a central computer in Toronto via the Trans-Canada Telephone System. These locations handle in excess of 80 percent of all retail credit transactions. Installation is now in progress and will be completed by September 1983.

Under this system, terminals will be used to read data encoded on the magnetic stripe on Texaco travel cards. Every credit card transaction at participating locations will be cleared through the central computer system, which will be able to prevent the extension of credit on accounts that are delinquent or in cases where cards have been reported lost or stolen.

III. Conclusion

Notwithstanding the availability to Texaco Canada, and presumably other major refiner-marketers, of cost saving techniques like those described above, the Green Books insist that the major refiner-marketers have historically been laggards in developing efficient marketing systems. There is, however, significant evidence that the reverse is the case.

If this proceeding is to focus on true competitive issues, it should examine dispassionately the real efficiencies available today in the marketing and distribution of petroleum products. As this portion of Texaco Canada's submission indicates, it is the company's firm belief that such an examination would demonstrate that the interests of Canadian consumers are well served by the marketing and distribution system which has resulted from the competitive environment presently existing in the industry. Texaco Canada's marketing system, far from being backward and inefficient as the Green Books contend, is a leader in the industry. Further government regulation of this area can only serve to protect the inefficient and prevent the innovation that ultimately benefits all consumers.

GENERAL CONCLUSION

Gasoline and other petroleum products are essential to all Canadians. Fluctuations in prices have an obvious and significant impact on all of us. It is natural to look for a cause of price increases, and to doubt the efficiency and fairness of a changing market. This hearing gives the public an opportunity to look dispassionately and carefully through the eyes of the Commission at the complex world of petroleum marketing over the last thirty years.

By now, it must be apparent to all participants in these hearings that the Green Books did not attempt to examine fairly or logically the marketing and refining issues that they purported to address. The irresponsible allegations of predation and billion dollar rip offs established an adversarial base for these hearings. The Commission now has the opportunity to assess the evidence.

Of most interest and concern are present marketing policies and activities. The following table is intended to illustrate the financial impact on a company like Texaco Canada of recent gasoline prices during price wars. While the data is not and cannot be precise, it does present a general measure of profit and loss. It illustrates the extent to which competitive pressures induce refiners to sell below cost.

TABLE C-1

Profit available to a typical Refiner-Marketer from the retailing of No. 2 Grade Gasoline in Ontario per litre

	Example No. 1	Example No. 2	Example No. 3	Example No. 4
Retail price at pump	45.0¢	40.0¢	35.0¢	30.0¢
Government taxes included in the price of the product:				
(1) Provincial Road	7.3	7.3	7.3	7.3
(2) Federal Excise	1.5	1.5	1.5	1.5
(3) Federal Sales	3.0	2.5	2.1	1.7
Approximate retailer margin	2.6	2.6	2.6	2.6
	14.4	13.9	13.5	13.1
Balance available to a typical refiner-marketer from which costs must be paid and profits earned	30.6	26.1	21.5	16.9
Cost of crude oil at refinery (government-set price including royalties and mineral taxes, petroleum and gas revenue taxes, petroleum compensation and Canadian ownership charges. Also includes applicable pipeline transportation charges.)	23.0	23.0	23.0	23.0
Approximate cost of refining, distributing and marketing	6.0	6.0	6.0	6.0
Approximate pre-tax profit margin to refiner-marketer	1.6	(2.9)	(7.5)	(12.1)

Overcapacity and oversupply can lead to market upsets and price wars. It has been suggested that fluctuating prices and price wars are manipulative devices used by refiner-marketers to discipline the market and to make exorbitant profits. This suggestion is illogical. It ignores the real struggle between all participants to sell their products. It also suggests that large marketers should not use price reductions to attract or keep customers. It does not recognize that the principal losers in days of surplus supply are the refiner-marketers who sometimes are obliged to sell products below apparent cost as part of an effort to maintain refinery utilization rates at levels which permit economic survival.